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The American Rose Society

ORGANIZED 1899

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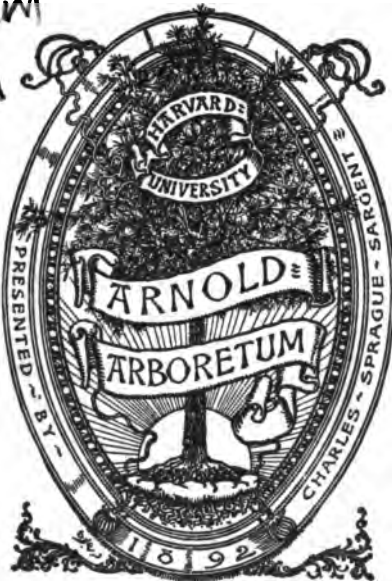
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SUGGESTIONS, CONTRIBUTIONS AND CRITICISMS will be welcomed by the Editor, at the above address. It is particularly desired to secure rose information for the 1919 Rose Annual, with photographs if convenient. Reports of June rose-shows are especially requested.





**THE AMERICAN
ROSE ANNUAL**





PLATE I. The new American-grown rose, **MRS. HENRY WINNETT**
(See article, "Rose Notes")

THE AMERICAN ROSE ANNUAL

*THE 1918 YEAR-BOOK OF
ROSE PROGRESS*

EDITED FOR THE AMERICAN
ROSE SOCIETY, BY

J. HORACE McFARLAND



1918
AMERICAN ROSE SOCIETY
EDITOR'S OFFICE
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July 1918

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THE ROSE IN WARTIME

"Mercifully, there ARE roses to be cultivated while we read of torpedoes and machine guns, of submarines and Zeppelins."

MRS. EDWARD W. BIDDLE

(See Symposium, page 15)

THE AMERICAN ROSE SOCIETY

ORGANIZED MARCH 13, 1899

*"To increase the general interest in the cultivation and improve
the standard of excellence of the Rose for all people"*

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Life Members (\$50) and Annual Members (\$2) receive all publications, tickets to all exhibitions, and are entitled to vote at all meetings.

Affiliated membership can be secured for associations and societies interested in rose culture, at the rate of \$1 per member each year, receiving in consequence the current American Rose Annual, supplied through the secretary of the affiliating organization.

Remit, with full address, to E. A. White, Secretary, Ithaca, N. Y.

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EDITOR'S PREFACE

IN the midst of the world war this third American Rose Annual is sent out, in the feeling that there is no least lack of patriotic fervor and no failure to sense the seriousness of the combat for the very life of civilization in thus aiming to promote the prosperity of the rose. Every day that passes, every word from the front, every item concerning the support of the war, shows the worth-whileness of recourse to the best that nature can give, in order that we may more courageously, humanly, and efficiently face the common foe.

It is in this feeling that the Editor has secured the important symposium, "Shall We Grow Roses in Wartime?" which immediately follows.

Evidences are not lacking that the preceding issues of this little book have served as a magnet to draw together and weld firmly not only the rose-growers of America, but our friendly allies in England and in France. The American Rose Society has in the past year materially increased in strength and importance, and its future seems bright with possibilities.

It will be observed by those who consult this Annual that the discussion as to rose stocks is going on encouragingly and importantly. The memorandum in "Rose Notes" relating to importations shows the necessity, if we are to have roses in the United States, of arranging to grow them successfully here.

Much space has been given to the presentation of the thoughtful and scientific tests of roses conducted in Captain George C. Thomas' great garden, and also to the report of impartial observations in the Washington and Cornell Test-Gardens. It is believed that rose-lovers will find in these observations and in other articles of the same nature valuable information in considering rose varieties.

If the American Rose Society had done nothing else than to foster the orderly study of rose pathology, it would deserve its present prosperity. The report from Dr. Massey printed in these pages shows a most important result in its suggestions for the control of rose black-spot and powdery mildew, the two

**THE AMERICAN
ROSE ANNUAL**



PLATE II. E. A. White
Secretary American Rose Society: elected in 1917; Professor of Floriculture,
Cornell University, Ithaca, N. Y.

THE AMERICAN ROSE ANNUAL

Shall We Grow Roses in Wartime?

A SYMPOSIUM

IMMEDIATELY upon the entry of the United States into the war for democracy there arose the insistence of the unthinking that true patriotism required the cessation of all civic endeavor, all uplift effort, all consideration of the beautiful. We were, all the hundred million of us, to stand on the corners or sit on the fences to see the soldiers march by; we were not to do "business as usual" or at all. The lawns and the golf-courses, the rose-gardens and the tennis-courts were to be plowed up so that more potatoes might be grown, when at last these same unthinking patriots began to realize that watching the boys go to the camps did not do much to sustain the Government.

But this hysteria has passed. Sane, true thought has given us to know that we need to apply ourselves intensely to business that we may in taxes and in bond-buying finance the war, to philanthropic endeavor that our workers may be made more efficient, and to every recreative opportunity that we may have strength and spirit to carry the added load, to support the Red Cross, the Y. M. C. A., and other agencies for helping the soldiers win the war.

Believing that it would be worth while to hear, not only from the men who grow roses for a living, but from women and men who are in the very front of patriotic endeavor, the question has been asked, "Shall We Grow Roses in Wartime?" and the replies follow.

Dr. Edmund M. Mills is a militant clergyman as well as an active rose-worker. He has for many years guided, as president, the very successful Syracuse Rose Society. His answer is:

"Shall we continue to grow roses during the war?" Certainly neither Patriotism nor Piety require that we 'Hooverize' on faith, hope, good cheer, or love of the beautiful. We may have wheatless, meatless, and heatless days, but even war necessities do not decree roseless years. Disfigured with so many

fields of 'frightfulness,' let the earth conserve and keep her beauty-spots. The churchman is even now studying how to thaw the death-frost of hate from the heart of the world. The patriot statesman is dreaming of bringing in the age when men shall learn war no more. The manufacturer and merchant are already arranging to capture the world's commerce when the freedom of the seas is won. 'The world must be made safe for Democracy,' but the rose-lover has a contribution to make to man's life that is not nourished by bread alone. In the new world wherein dwelleth Righteousness, how can Beauty also dwell if the Queen of Flowers is banished from it?"

Dr. Liberty H. Bailey, author, editor, educator, lecturer, horticulturist—and, not least of all, good citizen—is probably the best-known American who is related to the use of the soil and what grows in it. His point of view is that of the broad-minded lover of his country. He writes:

"With all the demands on us in these unusual times, it is the natural and desirable tendency to save. This saving will have vast and good effects on our people

"Yet there is such a thing as discrimination in saving, as in all else. We are to save now for a great definite purpose—to win the war. We are not to save merely as abnegation or as self-discipline. The best discipline comes from conservation that has a positive rational end in view, for which we plan.

"We are to eliminate such habits and activities as are wasteful of materials needed in the war. Of these, certain foods are the chief. We may be forced to stay or even to eliminate industries that use up these materials in non-essential ways and that compete with war-work. We are to reduce habits and practices that injure health, that burn up energy without results, that tend to deterioration of character. We are to save labor that might be turned to uses directly productive in the war or that might contribute more strongly to public welfare.

"We are not called on to stop all the normal activities of life nor to cease making personal acquisitions. In wartime it is specially incumbent on us to maintain interest in business, to support education, to further civic welfare, to preach the gospel, to treasure the courtesies and the refinements, else we may lose our bearings and, by thinking only of disaster, sink into the slough of despond. We must not become hard. The earth is still ours; we shall treasure its blessings and appreciate its incidental joys, hoping to keep our hearts true and our courage strong. Many of us will seek special consolations in the woods and with the birds and plants. We shall find much relief in growing vegetables, fruits, and flowers. Nature is not at war.

"Whether the commercial growing of flowers on a large scale is to be lessened will depend mostly on the fuel-supply and the labor. This question will be settled by the exigencies of the situation as we get farther into the great conflict. It will be an adjustment of necessities, determined in advance. I hope that we shall not be obliged to sacrifice valuable growing collections and stocks that cannot be replaced. The experience of the European peoples will be suggestive to us in these relations. If we are reduced to straits, the harmful and useless indulgences and the frivolities should first be eliminated; there are many of them. Floriculture is a gainful occupation, yielding wealth, destroying nothing, producing no bad habits. Not yet are we justified in classing flowers with the unessentials.

"Every person must be the judge of his expenditures of effort. Certainly

the personal rose-garden, requiring little in the way of labor and supplies, will return special satisfactions in times like these. The growing of flowers by one's own hand makes for health, for the spirit of enthusiasm, for trust in things uncontentious, and for reprieve in the stress of war. We need to stimulate the qualities for which roses stand."

Few American periodicals have the influence possessed by *The Outlook*, of New York. Lawrence F. Abbott, president of the Outlook Company, and of its editorial staff, sees how roses aid imagination, as he thus replies to the query:

"In wartime wheat-fields and food-gardens are of prime importance; soldiers are more necessary than editors, and powder and guns more essential than books and music. But this is not to say that things of the mind and of the spirit are unimportant and must be abandoned. In fact, I am not sure but that it may be contended with reason that the spiritual side of warfare is the basic foundation upon which all material success must rest.

"The Germans at the outbreak of the war had guns, men, equipment, and unquestioning military discipline. They had an extraordinary diplomatic machine with ramifications all over the earth, but they lacked spiritual imagination. That is why they were turned back at the battle of the Marne, why they failed at Verdun, and why their diplomacy in the United States and South America collapsed in ignominy. It was the power of imagination, the power to live actually in a world of ideals as well as in a world of material fact, that enabled the French and the British to hold out in the terrible days of the Marne and Verdun. What are military bands, dress uniforms, medals of honor, citations of bravery, banners and battle-flags but appeals to the imagination? Why do the military authorities not only welcome but organize concerts and theatres at the very front, except because they know that whatever feeds, fertilizes, and develops the imagination is of actual and practical use in warfare?

"One of the greatest military struggles of English history is known almost to every school child as 'The Wars of the Roses.' The House of York adopted the white rose as its symbol and the House of Lancaster the red. It is this esthetic emblem, with its appeal to the imagination, which has stirred the patriotism and national aspiration of English children for many generations, who perhaps would otherwise never have remembered the ducal houses and the political jealousies of this historic struggle. What the shamrock has done for Ireland and the bluebell for Scotland no historian can estimate.

"No great human achievement has ever been performed in times of peace or in time of war except by men who have used their powers of imagination. Almost the sole thing that has made man the conqueror of the forces of the natural world is his imagination. It was imagination that led Benjamin Franklin to his study of electricity by flying a kite in a thunderstorm. Imagination has been the father of all inventions—the telephone, the telegraph, the electric light, the horseless carriage, the submarine, the percussion cap, the armored tank—all those appliances which are woven into the very fabric of modern warfare. Without imagination modern warfare would be a monstrous mania and its participants would all become lunatics.

"The esthetic side of life needs care and cultivation in wartime almost more than it does in times of peace. Esthetics—poetry, music, pictures and the beauty of flowers and landscapes—constitute the soil from which imagination springs and in which it flourishes.

"These are some of the reasons why I believe in rose-gardens in wartime. It is probably true that we cannot have 'roses as usual,' but it is just as certainly true that to take all our rose-beds and turn them into potato-plots would lead to the starvation of a very essential side of war-life. Such a course would be only a degree less foolish than a policy of plowing up all our potato-fields and turning them into rose-gardens."

Author of many books, teacher of landscape architecture, critical observer of national parks, the first systematic proponent of "country planning" for the United States, keen lover of America, Prof. Frank A. Waugh, of Massachusetts Agricultural College, at Amherst, who ought, if anyone ought, to put potatoes first, thus expresses himself:

"Shall we grow roses in wartime?" The greatest crime of all the ages has begun to bear for us its early fruits. It has already brought us a few trifling privations. It will surely bring us others and bitterer ones. But it should not deprive us of our common sense. While we shall have to give up many things, we have fortunately some choice in the matter. Let us exercise that choice where we can. Let us give up the things we can best spare; let us hold to those things we most need.

"It is clear that the great majority of us who read these lines are not suffering for food, nor are we likely to. If we cut down our rations of sugar and go without meat two days a week, we are just that much better off. We are benefited quite as much as the impoverished citizens of Europe to whom we send the surplus. Many of our other forced economies seem likely to prove blessings in our own hands.

"Then there are alcohol and nicotine on which enormous sums of money are spent, every cent of which runs to our injury. These are typical of lesser indulgences which cost something in money, much in health, and more in character. Obviously here is the place to economize.

"The things we cannot afford to give up are the kindnesses and the charities of life, and all those things which tend to fill our days with beauty or our hearts with peace. In a world so black and ugly as this one now seems, our souls cry out for beauty and for peace; and aside from the consolations of religion—aye, and along with religion—the greatest of these are the peace of the forest, the lake, the fields, the beauty of the sky and of the opening flower. Let us give up our crass luxuries, but we should never let go of these best things.

"I am old enough to remember the period following the Civil War. It was an awful time of devastating hatreds. Yet it was a time of heroic sacrifices. Men and women, North and South, had given up much, but the darkness of that day, as I vividly remember, was not in the lack of food nor shelter nor clothing nor money, but in the more terrible famine of charity and brotherly love and of the simple beauties which spiritualize life. Men were everywhere grabbing for land and for money, and many of them were getting what they reached for; but they had given up and seemingly forgotten roses and music and the songs of birds and neighborly love and all the sweeter things of living.

"Plainly, it is better for us now, in our day of trial, with God's help, to give up self-indulgence, greed, arrogant emulations, and hold to everything which is beautiful, refining, spiritualizing.

"Shall we grow roses in wartime? Emphatically, Yes!"

Among the best of all the garden books is "The Well-Considered Garden." Its author is also president of the Woman's National Farm and Garden Association, and is devoted to every good and patriotic work. She has decided opinions on one subject, and Mrs. Francis King thus expresses herself:

"'Yes, in moderation,' I reply to Mr. McFarland's question, 'Shall we grow roses in wartime?' If France and England can still keep alive the competitive public interest in this very flower, what an incongruity if we should decide to give up the growing of the rose! 'In moderation,' I repeat. It is not a time in which to begin an important costly rose-garden. If such should have been started before the war, finish it by all means if this can be done without neglect of one's duties to our Allies and our Government; but wait for other large beginnings on a large scale, and for private enjoyment only, until times of peace. The great gardens are now luxuries and, like those in England, should be kept alive, the rare and precious things in them protected and cared for.

"It is with roses as with other flowers—we cannot—we must not—be without them. 'Flower-gardening will revive in the fullness of time.' Meanwhile, let us blow upon the spark. A few new roses are not only suitable but wise for this coming spring. The care of those already in the beds is certainly justified, for room will not be given these at the expense of vegetables by any thoughtful American. The need for flowers was never so great as now, and Canon Rawnsley, in the pages of *The Garden* (London) has said this so perfectly in the lines appended that I shall end with his words and not my own:

'When all the August Roses blow
And the Gladioli in a row
Unplait their green and break to flame
That puts fair Dorothy's bloom to shame,
I wander down the well-kept sward
Which gallant Phloxes grace and guard,
And while their Autumn scent is sweet,
Gaze on the rainbows at my feet,
White, purple, pink, and crimson seen
Mixed with the touch of gentlest green.

'I wonder if by any lake
Is such a sight for hearts that ache,
And praise the hand that set His bow
In clouds, but thought of earth below;
Who in this cloudy day of strife
Gives us new hope of happier life
When, peaceful as these Phloxes are,
The nations shall forget to war,
And in unjealous companies
Shall bid us dream of Paradise.

'Bloom, Phloxes; bloom by Grasmere shore
To give us comfort from earth's store,
May the dull eyes of man behold
God's love, God's beauty here enscrolled,
And take to heart the lesson given
That peace, not war, is willed by Heaven.' "

The International Garden Club is a new organization of much importance, having a club-house and gardens at Bartow, in the Borough of the Bronx, New York City. It is planning a great municipal rose-garden for New York. Among its officers, patrons, and members are included most of the men and women who do things in the metropolis. From its able and active president, Mrs. Charles Frederick Hoffman, a woman busy all the time in good work for humanity, come these words in answer to our query:

"We know not why, but it has always been in war times and periods of great disturbance than men and women have turned toward the growing of flowers. The greatest development of the Queen of Flowers had its roots in the vast revolutionary upheaval preceding and during the Napoleonic Wars. It was the love of the Empress Josephine for her garden, and especially for the rose, which started its modern development, and there is an order still preserved in the British Admiralty that when French ships were captured in the War, any plants or seeds that were on board for Madame Bonaparte were to be expedited.

"In the brutality and cruelty of the present conflict, it is all the more important to preserve those things which make for the finer side of humanity.

"There are two books," says Sir Thomas Browne, 'from whence I collect my Divinity; besides that written one of God, another of his servant, Nature—that universal and public manuscript that lies expanded unto the eyes of all. Those that never saw him in the one have discovered him in the other.'

"I think in the same way, in this our time of distraction and sorrow, in the upheaval of our normal lives, we turn to those mute but tender consolers, the flowers, the trees, and all those sympathetic, if silent, manifestations of a divine creation which surround us. I only regret that the great municipal rose-garden which the International Garden Club has projected for the City of New York is not existing and ready to do its share in bringing inspiration, relief, and peace to the wounded among our people in this torn and agitated time.

"Flowers are a necessity to a people. There is a limit to human strength and endurance, and the relaxation which comes to the mind by having flowers in the home, garden or hospital is a thing of reality to those who know and love flowers. A recent letter from a French florist tells of the shortage of rose plants in France, due not to the war causing less production, but because the war is making roses a necessity to those who sorrow."

An organizer of remarkable success, a doer of things that make the place she lives in better, an eloquent speaker, Mrs. Edward W. Biddle, of Carlisle and Philadelphia, is the active president of the Civic Club of Philadelphia, honorary president of the Civic Club of Carlisle, and a vice-president of the American Civic Association. As past president of the State Federation of Pennsylvania Women, she is known all over America, and she relates officially to many more philanthropic organizations. Her answer follows:

"Roses in wartime? Why not? One of the great wars of history was the Wars of the Roses, and its outcome typified the victory of a flower.

"If the rose is the valuable contribution to life that we think it is, let us not cease to cherish and nurture it, even though tears may fall upon its petals as they unfold.

"When our hearts are sad, we do not turn for comfort to the things that are repulsive or ugly, but we instinctively reach out for that which touches us with its gentleness and beauty; and it seems to me that because life's burdens are now unusually heavy, we more than ever need to learn the lessons that flowers teach. Flowers continue to grow and bloom, and to lift us up; and whether or not we are conscious of it, they help to restore confidence.

"It is because we are living under a high pressure in this day of emergencies and critical moments that we are in utmost need of all the soothing, quieting influences possible—such influences as emanate from nature and from art, such as are to be found in music and pictures, in mountains and valleys and trees and flowers.

"A love of the beautiful helps to give the people stability.

"Mercifully there *are* roses to be cultivated while we read of torpedoes and machine guns, of submarines and zeppelins!"

The Rose Society of Ontario is an active and successful organization. Its president, Mrs. G. G. Adam, has written thus as her reply:

"Shall we plant roses in wartime?" The rose-garden is today more essential than ever. Many who need a holiday and cannot leave home because of the war, have their gardens for a recreation-ground, a place where no unkind thoughts are harbored, and where one can live, work, and keep well. The purchase of a few plants to stimulate interest is surely a harmless and inexpensive pleasure that may be enjoyed by many. A rose-garden cannot stand still; it must be replenished or it will deteriorate.

"In these days, when so much is required of us for charitable work, we must keep ourselves fit. How can we do it better than by taking happy and healthful exercise in tending the rose bushes?

"I say, in answer to your query, 'Yes; emphatically yes!'"

In our great capital city of Washington there is a vigorous garden club doing much good work. From its energetic president, Mrs. Charles H. Wetmore, comes this statement:

"Why should we plant roses in wartime?" I think my own opinion would be that there must come a peace some day, and that then we should want to have all human amenities resumed. Their existence will depend somewhat on our having prepared for this resumption; and without some preparation of this sort being carried on in wartime, we will find that we have lost, through neglect, many of the pleasant achievements of the past."

Elsewhere in the Annual is an interesting article, "1917 Rose-work in England," by the "champion" rose-grower of that land of roses. To our query, Herbert L. Wettern thus responds:

"A lot of good is done by the continuation of rose and flower shows, for people can easily have too much of the war. They get it on the brain, morning, noon and night, and unless relaxation of some sort is provided, the tension is apt to become too great. What better relaxation could they have than flower shows, particularly for people who are inclined to horticulture? The roses and flowers must do them good and take away their thought for a short time from more serious things."

It might be expected that the commercial rose-growers would believe in the persistence of the rose in wartime, but that their reasons should be those which follow could hardly have been predicted.

From Charles H. Totty, president Society of American Florists and Ornamental Horticulturists:

"Why is it that the people in the war zone tell us that their gardens are their chief antidote to the horrors of war, and the relaxation to which they thankfully turn after working themselves almost into nervous prostration over Red Cross work and the problems of housing and feeding orphans, widows, and caring for the flotsam and jetsam that a war brings in its train?"

"Why should one grow roses? If for nothing else, grow them for the sake of your own health and sanity; grow them because they soothe the sorrow and mitigate the suffering the war has brought.

"There is another question that should be considered. Is it fair to the man who has specialized for years, hybridizing and raising roses for your pleasure and enjoyment, to cut off his source of livelihood by not buying either plants or blooms this year? How is he going to keep up with the Government plea for 'Business better than usual,' if you, with a mistaken idea of patriotism, cut off his income by not buying his product?"

"Are we to throw over everything in our lives that does not make for war efficiency? Are we to cut out all the sweetness and beauty of life just because we've got to win the war? After we have won the war, if we have nothing left but cannon and superman ideas and deadly proficiency in the art of killing our fellowmen, then we are poor indeed!"

"As a recent writer in an English paper says: 'It is not that we do our duty too strenuously, nor that we are excessively susceptible to the sufferings and wants about us, but that we are sometimes apt, as our books and theatres show us, to come to think that conflict is in itself exclusively interesting, and, in the mere sensationalism of warfare, to neglect the humaner cultivations, for which a legitimate opportunity can never quite be lacking, and without which war would be doubly intolerable and even peace insane.'"

Few American rosarians give more broadminded attention to the rose than Robert Pyle, of West Grove, Pa. He has represented America abroad at an international rose exhibition, and has followed his favorite flower all over Europe in pre-war days. His lecture on rose-gardens is not only beautifully illustrated with the lovely pictures he has gathered, but quite as beautifully emphasized by his keen appreciation of and his

notably great success with the Queen of Flowers. For this war-rose symposium he has written thus:

"Grow flowers and keep fit.

"Look steadily into the face of a freshly opened rose: it will appeal to the best in you, it will draw that best to the surface where you can possess it. Flowers are messengers straight from the Creator, and everyone who listens as he looks will hear increasingly and be restored to himself.

"Work among roses, and imbibe health.

"Live among roses, and renew your spirit.

"Give roses, and in language that will sink deep into the hearts of your friends, you can spread good cheer. You can lift them, actually, to higher levels, and make better citizens in a time of world need."

From George H. Peterson, a well-known and successful grower of outdoor roses:

"Why plant roses in wartime?" Because they will bring comfort, hope, and joy to the sick and wounded, in camps or when invalidated home, as nothing else will.

"Because those of us who stay and fight the battle at home must have something somewhere to go to for respite, relaxation, solace—call it what you will. And where will we find what we seek, what we need, so complete, so satisfying, that will renew our strength and determination to do to the end, as well as in our gardens?

"Because flowers are God's messengers. They speak to us of resurrection, of the peace to come when the sword will again be turned into the plowshare—this time we trust forever.

"Because, as a Frenchwoman customer, resident in this country, who has lost nearly all that was dear to her, says, in just sending in another order, 'I, too, "cannot live by bread alone" and must have roses this year of all years, for they bring cheer to my heart.'

"And last, but not least, if we fail to plant roses in this year of our wartime, many of us will, because of the unprecedented severity of the winter, have few or no roses the coming season."

From Herman P. Knoble, a prominent Ohio rose-grower:

"It is my honest conviction and best judgment that roses should at all times be considered so essential to the welfare of civilized life that any attempt to abolish them because we are at war would be doing a great damage to the community and the country at large for a long time to come.

"I believe that roses, before all flowers, should be cultivated just as extensively as is humanly possible. Of course, I do not mean that other flowers should not be grown; but I think roses should be given the preference. Roses are very beautiful, and the good they do is lasting, while their growth can have no perceptible effect upon the military economical situation of the nation. Why then object to their cultivation?

"There are times when all of us are apt to lose sight of our better judgment in the inclination to do some temporary thing that actually has no bearing on the ultimate result we are trying to accomplish. Consequently, it is well to analyze the conditions thoroughly before trying to restrict some accustomed activity, such as, in this case, the planting of roses.

"We have heard of people plowing up their lawns to plant potatoes, and others have been digging up the flower-beds in a beautifully arranged Italian garden in order to plant vegetables. Almost without exception, if this energy were properly directed to the cultivation of vegetables in an open field, usually nearby, far better results would follow.

"I say emphatically, plant roses particularly, and flowers of all kinds in general! I urge this planting with the thought that it will make this country a better place in which to live, and help to lighten the burdens that are daily placed upon us by situations due to the war."

From "Penn, the Florist," otherwise Henry Penn, who has had a notable influence on cut-flower use in his city, Boston:

"During the present war period roses have filled the souls of mothers, and of sons who have gone to the front, with something invisible that only Nature herself can express; something which carries the message from heart to heart, as flowers alone can do.

"As the youth who, when over-seas, in a moment of meditation, thinks of mother at home, so does the rose carry to the mother at home the same thoughts of her boy 'over there.' When the world's war does terminate—for end it must sooner or later—may we not imagine wondrous gardens of roses blooming in exultation of joy, for a better peace-loving people to enjoy the blessings of Mother Earth! May we not then see a new battle, of roses rather than of bombs, each one reaching out to the sun to give the best that is in her for us all to enjoy.

"Let us believe that rose-gardens will spring up everywhere and, with their beauty and fragrance, will fill the atmosphere of both continents with that sublime something for which we have been searching for the past four years of the present war period; something which has inspired the poet Goethe to say, 'Forgiveness is the odor which flowers yield when trampled upon.'

"Roses always seemed to suggest many qualities of character applicable to humanity. For example, a full-blown rose illustrates to me generosity and good nature; a strong-stemmed, half-open rose designates strength and morality; while a weak-stemmed, unopened rose indicates lack of character and the uneasiness so often found in people; and so one might go on naming many things which the rose, in its varying habit from day to day, suggests.

"This varied expression is not found in many other flowers, which usually remain about the same as when cut; for instance, carnations, violets, lilies, sweet peas, snapdragon and lily-of-the-valley are all beautiful, yet hardly varying from time of cutting until their maturity. The rose, however, varies from day to day as the petals open and disclose its real beauty.

"I have often seen an entire family's spirit, in times of depression and sorrow, brightened and illumined by the presence of a single rose, which gave them comfort and hope in the midst of their gloom.

From G. E. M. Stumpff, a thoughtful florist of New York:

"I would even suggest giving the German Emperor an armful of roses; could he look at them and think of war? Is the world to become wholly inhabited by bloodthirsty people, or is the rose to be our emblem?

"The wounded soldier, the mother, the sweetheart—must they be denied a rose? If you had a birthday, or holiday, or were ill in bed, what would a box of beautiful roses with its enclosed card mean to you?

"Consider the boy in France, thinking of his mother caring for her rose-garden while awaiting the return of her son—would he rather she did not grow roses?

"What has been the welcome of France to the American soldier—a welcome which has brought joy to the hearts of the boys 'over there'? It was the French girls handing a rose to each soldier as he landed on the shores of France! Was this wrong?

"There is nothing in this wide world that carries so much sentiment as the fragrance and beauty of a rose. Romance and roses have traveled hand in hand too many years to be stopped at this late date, and rose-lovers have been the best fighters, too."

From F. C. W. Brown, a well-known rose-grower of Cleveland:

"Stephen Girard, the great Philadelphian philanthropist, when asked if he knew he were going to die tomorrow what would he do today, answered, 'If I were going to die tomorrow, I would plant a rose today.' This was the statement of a great man and therefore his answer to a vital question must be considered as an acknowledgment by his master mind of the value of the rose.

"In the bitter struggle now consuming the greatest and best efforts of mortals since the beginning of time, we find that flowers are not forgotten. We see pictured views of the fighting men behind the lines, and, if we look closely, we will, where time has been sufficient to permit, find often that the soldier boy has planted a garden of flowers in his trench's back yard.

"We see pictures of the lonely graves of heroes, with their floral tributes from comrades who have been, in most cases, merely preceded to their death, hours or days, by the one they are honoring. We read of the only fragment of chivalry displayed in this grim war of machines against men, where an aviator who, having brought down his opponent, will return over the lines to drop a wreath in honor of his defeated adversary.

"Yet we ask ourselves, in fear and trembling, 'Shall we grow roses in wartime?'

"I sometimes wonder if we fully realize the paradoxical influence of the rose.

"At the bedside of the sick, in the home of old age, at the house of death—because of the power of the rose to soothe or exhilarate beyond all other mediums, we find their use is universal.

"Is there a banquet? You must have roses! Is there a great concert? You must have roses!

"The bride, My Lady dressed for the formal ball, the debutante—all arrayed in the latest and greatest creations of the modiste—must of necessity have their outfits harmonized and individualized by flowers—the rose.

"Let us not lose faith in the Queen of Flowers, the rose, for we will emerge from this holocaust of war with a greater demand for things beautiful and peaceful; and what indeed will serve more quickly to alleviate the bitter memories of this terrible struggle than the rose?"

The conclusion is inevitable, as one reads these words of thoughtful men and women who love America, that to neglect the rose in wartime is to promote inefficiency, to do less than our best. Let us therefore go forward with the rose!

Roses in Broad Landscape Planting

By WARREN H. MANNING, North Billerica, Mass.

EDITOR'S NOTE.—Mr. Manning, a distinguished landscape architect who has not only created many park systems but has developed great private estates, brings forward here the idea of having persistent and "husky" forms of the roses dominate the landscape. He would have the attractive single roses replace unattractive weeds, and he suggests the practicability of such plantings. Taken into account with the improvement of a railroad embankment, as elsewhere detailed in this Annual, the prospect is most attractive. Why not have beautiful roadsides?

THERE is one phase of rose-growing that ought to be given much more attention, and that is the growing of plants that are suitable for extensive landscape planting. If those who design landscapes and make extensive park planting were able to secure large quantities of plants of certain varieties, such as the Russian rose, the old-fashioned Cinnamon rose, Cabbage rose, Sweetbrier, Harison's Yellow, and Prairie rose at low prices, they would at times be used for extensive roadside and field plantations in such quantities as to justify propagators in making a specialty of their cultivation. The situation is a similar one to that presented by the cover-plant, *Pachysandra terminalis*. This is an Arnold Arboretum introduction that has proved to be an exceedingly satisfactory dark green evergreen ground-cover, either in dense shade or sun, and that up to this time has withstood injury from frost, disease, and insects. One propagator has offered rooted cuttings of these, established in pots, as low as \$15 a thousand, which has made it possible for the writer to order and use some 100,000 in his work in the past two or three years; whereas, if the ruling price of about \$15 a hundred had been demanded, substitutes would have had to be used, though less satisfactory.

Coming back to roses, take the Russian rose for example: I planted it in sand a few years ago on the shore of Lake Superior, with enough fertilizer to give it a good start. Here it has spread with its underground stolons into great, broad, low, dark green mats of foliage that are extremely attractive and that flower quite as freely as plants under better conditions. From this experience, I believe it would be possible to use this as a sand-

binder and secure results that would be quite as effective, so far as foliage is concerned, as is secured with the wax myrtle, or bayberry, with the added attractiveness of flowers and fruit.

The Sweetbrier or Eglantine rose is at times offered at low prices for seedling plants. Such plants are used effectively in great shrub masses, to cover steep banks or along shores, and in positions where the very delightful fragrance of this, the famed Eglantine, would be swept to the homes of those who use the material in this way.

The Cabbage rose, or *Rosa centifolia*, is a persistent plant about old house-sites. I knew of one place in the Middlesex Fells Park, of Boston, when the land was first acquired, where this species had persisted for probably a hundred years. It was on the site of an old house in which tradition stated that children lost their lives over a hundred years ago in a fire. If this could be secured in large quantities, it would make a low cover-shrub that would be very charming in the color of its flowers.

Another old rose that one finds, occasionally in large patches, about the New England homesteads and sometimes about western homes that were settled by New Englanders, is the Cinnamon rose. It makes a very tall shrub, with double, irregular, button-like flowers that are not showy but are fragrant. The stems of this rose are a dull red, and it is therefore quite attractive in winter.

The Manetti rose will also maintain itself a long time about old homesteads, as do also Harison's Yellow, the old white double Cottage rose, and the Scotch rose.

Those who are familiar with the splendid banks of the Prairie rose, as one sees it in Ohio, where it also often scrambles high up into trees, would recognize the value of this plant for bank planting. Of course, in this region it grows wild from seed. I have found a few plants escaped from cultivation into the wild in New England, and this would indicate that it might become naturalized there. Somewhat similar in its habit is *R. multiflora*, which shows a tendency to establish itself from seed.

We often need plants in large quantities for big plantations in broad landscape development and along roadsides. It is time for rose-growers and persons in other sections of the country than California to recognize that roadsides filled with roses for

miles give a distinction and attraction to a section that can hardly be secured in any other way. If this kind of planting is to be done successfully, elsewhere, it must be done, in most sections of the country, with the kinds of roses that will maintain themselves in the wild without special cultivation, just as our native wild roses maintain themselves along the seashore, the roadsides, on ledges, and in dry fields and wet swamps.

More attention should also be given to the growth of roses and other shrubs directly from the seed, in such plantations as have been referred to above. While little has been done in this direction, it is undoubtedly practicable to do a great deal, especially if rose-growers are ready to seek out and propagate the varieties that will establish themselves naturally, just as the exotic Sweetbrier has established itself in open fields over a large section of the country.

In the study of broad landscapes—that is the landscapes of regions over which one passes in the automobile, especially along the great national thoroughfares that are being established—there should be a more definite effort to create the kind of beauty that is represented by the great rose masses that I mention, not alone by the use of roses, but of other plants that will establish themselves.

Few people recognize the very decided changes that are coming about in the landscapes of the older sections of our country through the introduction of European plants that have spread so freely as to become more conspicuous in many places than the native flowers. The Scotch broom is established, for example, along the roadside between Richmond and Petersburg, Va.; in certain parts of the country about Norfolk, Va.; on the island of Naushon, off the coast of Massachusetts; at Pinehurst, N. C.; in such quantities as to be most attractive when in flower. Its near relative, the woad-wax, covers many acres of hillside pastures in a region about Salem and Beverly, Mass., and makes great sheets of yellow. In other sections of Massachusetts the yellow bedstraw is covering the ground as effectively as the woad-wax, and it is quite as effective in flower.

To the banks of the Hudson and the Merrimac, the purple loosestrife has found its way out of gardens and is spreading with amazing rapidity through moist places, making great sheets

of rose-color in the late summer where formerly there was little of interest excepting the dull green of the marsh grasses. In the Berkshire Hills, and in places near New Bedford, Mass., the wild thyme is covering many acres of ground in open lands, sometimes almost to the exclusion of natural grasses. It is very attractive with its great patches of purple flowers, and its fragrance is delightful as one walks over it. In a few places in Massachusetts the Scotch heather is established, and in one place it covers some acres. Another plant that is spreading as rapidly as the familiar whiteweed and the Queen Anne's lace is the orange hawkweed, which brings a distinctly new note of color into our fields, and is a more dangerous weed than either of those just mentioned. Also, such Japanese plants as *Clematis paniculata*, and especially the Japanese barberry, are becoming naturalized.

This is enough to indicate the character of the changes in the landscape that I have referred to which are being brought about by introduced exotic plants. Surely we ought to find roses that would take their places as effectively in our landscapes as do these other plants! Wild roses undoubtedly would be a welcome substitute for briars and the other native plants that endure and thrive under the roadside persecution of people and road-workers!

*But sweeter far in this old garden close
To loiter 'mid the lovely old-time flowers,
To breathe the scent of Lavender and Rose,
And with the old poets pass the peaceful hours.
Old gardens and old poets,—happy be
Whose quiet summer days are spent
Much in such sweet company.*

—JOHN RUSSELL HAYES.

A Rose-Garden with a Reason

By H. A. CAPARN, New York City

EDITOR'S NOTE.—Readers of the two previous issues of the American Rose Annual will doubtless have perceived the disposition of the Editor to bring to attention the natural forms of roses, the so-called "wild" roses that are beautiful in themselves, both in plant and in bloom. In "Roses in the Landscape," Mr. Charles Downing Lay in the 1916 Annual gave the artist's view of natural rose material, and in the same book Mr. E. H. Wilson described some of the Chinese species he had then recently brought into the United States. In the 1917 Annual, Mr. Wilhelm Miller argued for the use of the rose in the landscape. In the present volume, Mr. Warren H. Manning writes of the value of these same wild roses for landscape pictorial effect; Mr. Heide tells of great rose masses in Chicago's Humboldt Park, and in the following article, Mr. Caparn, a landscape architect of notable ability and no less notable public spirit, gives details of a conspicuous instance of natural rose-planting. The Editor sorrowfully admits and regrets the unfortunate scarcity of which Mr. Caparn complains.

THE rose-garden of Mr. W. J. Tully, Locust Valley, L. I., N. Y., was designed to make a home for roses that should have an interest beyond the mere flowers themselves. Like any other garden, a rose-garden should be a good place to enter and stay in and a bad one to leave. It should be attractive, not merely to the connoisseur of roses who comes to examine and enjoy his favorite flower, but to anyone who is susceptible to the charm of a garden.

This quality is, unfortunately, anything but common in rose-gardens which exist for the cultivation and display of the most popular and fascinating of all flowers. Many of those who make rose-gardens forget or ignore the law of nature that bestows on Hybrid Teas and Hybrid Perpetuals the scrawniest, most uninteresting and most intractable anatomy of all shrubs, as if in compensation for their supreme gift of blossom. You can't use them in the shrubby border or in any other place where massed foliage is desired. Most refined and sophisticated in flower, they are the weediest of bushes.

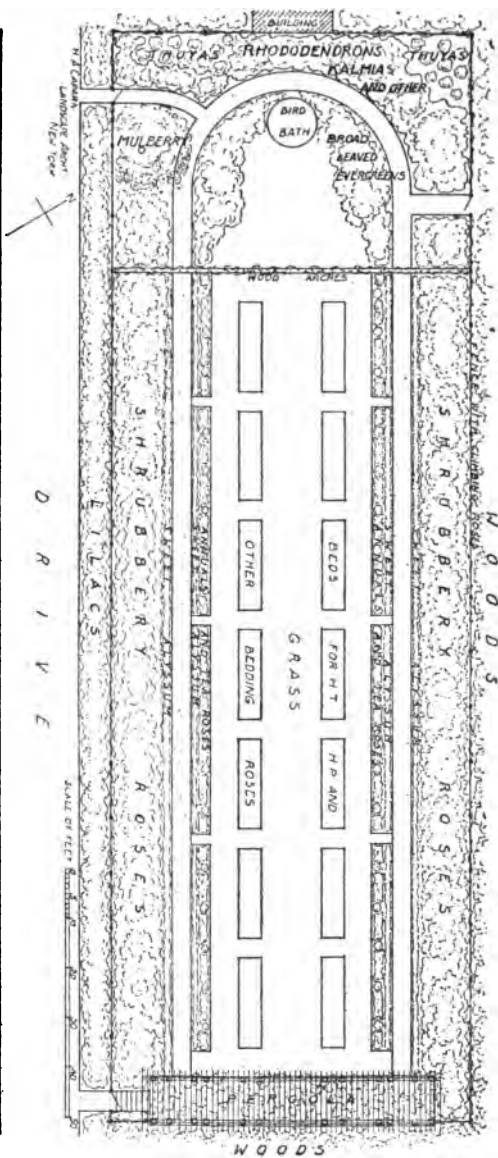
Yet the common way to make a rose-garden is to rule a piece of ground off into parallelograms of the desired size and shape, and set out the plants so that anyone can easily see and reach them, which is undoubtedly a good thing. Too often the designer seems to think that the merits of the individual flowers will put the whole thing over—will supply or atone for the lack



PLATE III. Natural Rugosa Standard Seedling grown by J. A. Kemp
(See pages 60 and 105)



Plan of "A Rose-Garden with a Reason." Estate of Mr. W. J. Tully, Loonst Valley, N. Y.



of scenic charm, of beauty of composition. It will not! As far as the ensemble goes, a rose-garden seen as a whole from a little distance would look just as well if the flowers were of almost any kind and of about the same size. So the average rose-garden as a picture is a tame and uninteresting failure, and a garden that is not a picture is not a real garden, but a nursery.

It is not difficult to make a rose-garden pictorial, to give it interest as a composition, by the use of other planting material—trees, shrubs and flowers—so that one can get the effects of masses and voids, of light and shade, that garden roses will not give. This might hardly be felt to be a real rose-garden, because it would owe its pictorial quality, its charm, not to the roses, but to their setting, to alien things, and, to the lover of roses for themselves, would be likely to have a certain incongruity.

But one does not have to use planting material of other genera to make a rose-garden look well. When one speaks of the rose, everyone thinks of cut-flowers—things grown for a vase or corsage or buttonhole—usually forgetting that the rose family is a large and varied one. It includes not only the innumerable varieties of Hybrid Teas, Hybrid Perpetuals, Teas, Bourbons, Chinas, and Noisettes, but many “bush roses,” as the writer calls them, wild in various parts of the earth, with single flowers. Bailey’s *Cyclopedia* catalogues about forty of them (some of them with many subspecies and hybrids) as being in the American trade, and nearly all are good in some part of the shrubbery.

It is a mistake to suppose that *Rugosa* is the only one fit to be admitted to the society of our favorite shrubs. There are dense bushes like *Rubiginosa* (the old-fashioned and romantic Sweetbrier), *Carolina*, *Lucida*; tall, straggling ones like *Rubrifolia* or *Canina* (filling a place in grouping like *Forsythia Fortunei*); dwarf shrubs like *Nitida* or *Foliolosa*; scrambling things like the lovely *Setigera* or *Prairie* rose; and roses of many habits of growth and texture of foliage in between these.

Then, as to their flowers. While the garden or double rose has no equal among flowers, all things considered, perhaps no single flower has quite the fresh charm of the wild rose, not even the apple blossom, a near relative. But the wild rose has become so eclipsed by the glory of its tame relative that people forget it a good deal of the time, in spite of its being excellent

company for other bushes, a thing which the tame rose—most of her (or it?)—absolutely refuses to be.

In addition to the many and varied kinds of wild roses, there are certain kinds to be found in old-fashioned gardens—survivals of the times when rose bushes used to be thought and spoken of—when a rose bush was a noble object in a garden, excellent in itself, not merely tolerable because it produced a few surpassing blooms. Such are the Cabbage, Damask, York and Lancaster, Persian and Harison's Yellow. *Mme. Plantier* (H. P.) will make a pretty bush and is delightfully floriferous. In fact, there is such a wealth of wild and half- or three-quarter-tamed rose bushes that not merely a small garden, but a "place" of respectable size might be furnished entirely, so far as its shrub and vine planting go, with roses. Some day a rose enthusiast (his enemies will call him a crank) will do this, and if it is done nearly as well as it might be, people will come from far and near to see it.

One drawback to the popularity of single or bush roses is the difficulty of getting most of them. Many nurseries carry *Rubiginosa* (the Sweetbrier is more attractive to the writer than the showier *Penzance* hybrids), *Carolina*, *Lucida*, *Nitida*, *Setigera*, *Rugosa*. The others—dozens of them—are hard to find. Why does not some nurseryman stock up with every kind of wild and bush rose he can find (perhaps he does already, unknown to the writer, in which case I think the Editor, who is a rose crank himself, ought to give him a little free advertising), and why do not a hundred or a thousand amateurs make collections as complete, if only to encourage him in his good work?

The rose-garden of which the plan is reproduced was completed last spring. It covers the site of a chicken-yard and a piece of left-over ground. It is very simple in general idea and is laid down on as strong lines as possible, to counteract the loose and weedy appearance of the Hybrid Teas and Hybrid Perpetuals for which it principally exists. The latter are in beds in the middle. Outside of these are long beds of annuals and Tea roses, and, framing the whole, twelve-foot-wide beds of bush roses—*Rugosa*, *Rugosa* hybrids, *Carolina*, *Nuttalliana*, *Rubrifolia*, *Canina*, *Pomifera*, *Harison's Yellow*, *York and Lancaster*,

Rubiginosa, Spinosissima, Blanda, Lucida, Lucida alba, Nitida, Setigera, Woodsii, Nutkana hybrida, Hugonis.

Enclosing all is a lattice fence, with large meshes, that supports about forty kinds of climbing roses, and the arches (also carrying climbing roses) crossing the garden three-quarters of the way up, separate the roses from the end section where they would not grow in the shade and shadow of a handsome mulberry tree which, with masses of broad-leaved evergreens and other plants, serves as a beyond and a background to the flowers of the roses and annuals. This tree controlled the situation, as such things often do; so instead of trying to hide it or to make roses grow in spite of it, or stopping the composition before it was reached, the tree was used as a motive, regarded as an opportunity instead of an impediment, and it shelters a good many rhododendrons (Maximum and hybrids), azaleas, box, kalmias, mahonias and other things that are grateful for its protecting presence.

Having but one season's growth, this garden is hardly ready for the photographer, for the frame of bush roses is not grown, and the pergola, arches, and fences need the covering of the climbing roses and other vines they are made to support. On visiting this garden last fall, the writer found that the gardener had covered the spaces between the Hybrid Teas and Hybrid Perpetuals with portulaca, so that to any color-sensitive person the whole thing must have looked pretty hectic when in full blast. But that was merely temporary, and already this garden seems to the writer to give a clear promise of what it will be when mature.

*Two roses on one slender spray
In sweet communion grew;
Together bailed the morning ray
And drank the evening dew.*

—MONTGOMERY.

The Rose-Garden of Humboldt Park, Chicago

By J. F. H. HEIDE, Garden Editor *Chicago Tribune*

EDITOR'S NOTE.—Few, it is believed, realize the actual present use of roses in the greater landscape effects in America. Mr. Heide tells here how a true prince of nature, Jens Jenssen, of Chicago, has planted great rose pictures for the millions of the lake metropolis to see. The diagram accompanying, on page 31, may be suggestive to some other park worker, especially when considered in connection with the plans of the other great public rose-gardens in Minneapolis, Hartford, and St. Louis, also printed in the 1918 Annual.

THE spontaneous growth of Chicago within the span of a lifetime did not admit of leisurely, methodical planning for definite utilitarian and esthetic ends, as in industrial communities projected in advance by special talent. Nor has it yet acquired the sleek and polished form of cities that were centuries in the making. Its energies have been absorbed in first building up a giant frame of bone and muscle; but, as it approaches maturity, Chicago strives to perfect its appearance.

Chicago can concentrate on the spiritual and execute things on a scale commensurate to its size and ambitions. This was aptly illustrated by the successful consummation of the Columbian Exposition, a phantasmal city in duck swamps, and (more recently) by the remaking of the entire West Chicago Parks system, of international repute as models of the "prairie landscape under the hands of a very able worker, Jens Jenssen."

Practically unhampered by considerations of economy, the dreams of Mr. Jenssen were allowed full swing, and it was here his natural talents for landscape planning on a huge scale were developed. The tremendous task was undertaken in 1906 and completed the following year.

The rose-gardens then in Chicago were confined to a small patch on Wooded Isle, in Jackson Park, where the remnants of the "World's Fair" eked out a stunted existence, and a minor garden in Washington Park. This lack Mr. Jenssen immediately sought to supply. Here are results in roses alone, a minor part of his vast park work:

Humboldt Park, 6,980 plants, 29 varieties; Garfield Park, 4,000 plants, 6 varieties; Douglas Park, 5,550 plants, 2 varieties.

As part of a perennial garden adjoining the Humboldt Park rose-garden on the west, 5,000 Prairie roses (*R. setigera*) are densely planted for mass effect, making a total of 11,980 rose plants in Humboldt Park alone. Dog rose (*R. canina*), *R. rugosa*, and other shrubs of the rose family are also liberally used in the landscaping of all Chicago parks.

The setting of Humboldt Park rose-garden, hidden away midst shrubbery and elms, lends an element of pleasant surprise. Approaching from the boulevard, the way is barred with two bronze bison in life size. Between them are two huge green terra-cotta urns and a fountain surmounting a parapet from which the view is best seen. As the diffused scent of the blossoms is wafted toward him, it is here the visitor lingers.

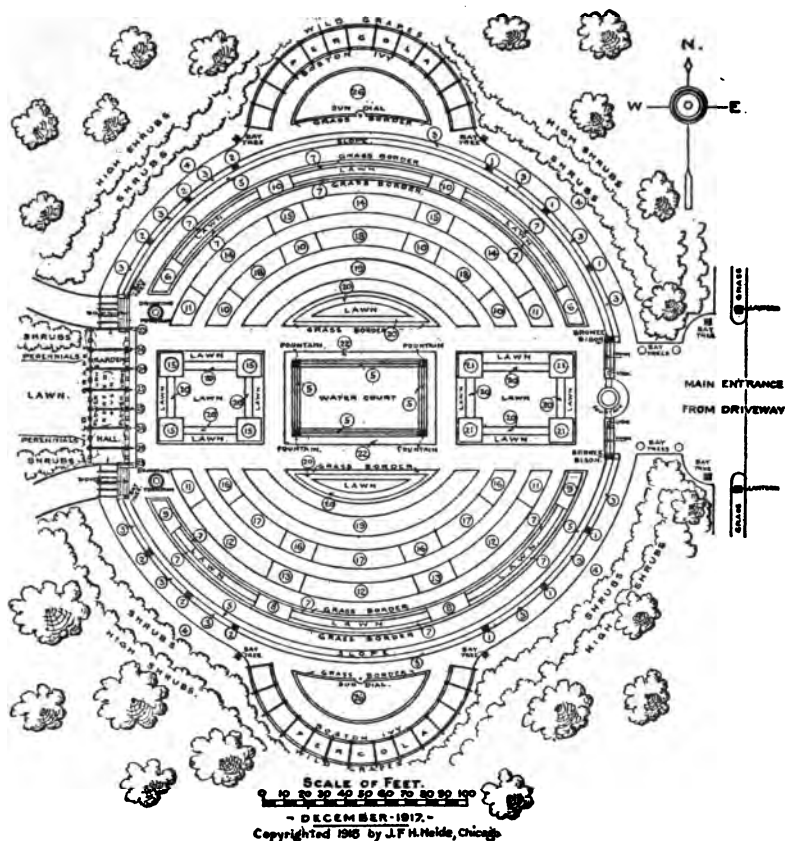
In the center, below, is a basin guarded on the corners by four bronze allegorical figures of heroic size. The vista terminates in the west with a shelter hall whose columns are overgrown with climbing roses. Between them are urns of various flowers.

The outer walk above the garden is broken with vine-clad pergolas at the north and south, each encircling a bed of standard roses, and the remnants of a sundial. Fringing the upper edge of the slope, the garden is encircled with a series of tall, slender rose-clad urns of terra-cotta. Lilies, yuccas, and other flowers are sparingly placed for diversity of foliage and blooms. But the motif as a whole is roses—roses on all sides—vigorous, healthy roses in all their wonted colors.

The numerals in small circles, on the accompanying plan, are explained in the following:

PLANTING-KEY FOR HUMBOLDT PARK ROSE-GARDEN

(1)—12 Flower of Fairfield roses on six terra-cotta urns. (2)—12 Lady Gay roses on six terra-cotta urns. (3)—Adam's Needles (*Yucca filamentosa*) and Madonna Lilies. (4)—Border of Adam's Needles and summer annuals. (5)—Massed Periwinkles on slope. (6)—100 Erna Teschendorff. (7)—1,080 Gruss an Teplitz. (8)—100 Sunburst. (9)—100 Baby Rambler. (10)—300 Mme. Edouard Herriot. (11)—200 Anna de Diesbach. (12)—480 General MacArthur. (13)—100 Paul Neyron. (14)—480 Mevrouw Dora van Tets. (15)—300 Ulrich Brunner. (16)—200 Etoile de France. (17)—400 Jonkheer J. L. Mock. (18)—400 General-Superior Arnold Janssen. (19)—1,000 Pink Killarney. (20)—783 Mme. Caroline Testout. (21)—200 Mrs. John Laing. (22)—Border of Ageratum, var. Stella Gurney. (23)—2 American Pillar. (24)—4 Crimson Rambler. (25)—2 Tausendschön. (26)—225 standard roses, now in only seven varieties, interplanted with 500 Hermosas, numerous Madonna Lilies, and summer annuals.



Plan of Humboldt Park (Chicago) Rose-Garden. See planting-key in Mr. Heide's article.

In 1912, the Park Board acquired August Koch from the Missouri Botanical Gardens to supervise floriculture in all the West Parks, under Mr. Jenssen, as consulting landscape architect.

Mr. Koch has maintained the continuous flower shows of the amazing conservatory in Garfield Park which have become a national attraction. The autumn chrysanthemum show alone attracts annually 130,000 visitors. The sea of roses in Humboldt

Park has, under his care, become a notable picture of plant grace and loveliness.

He found many of the plants affected with mildew and stem-blight, and, in 1911, rose midge had been introduced with new plants in the three principal parks. Hybrid Perpetuals and Gruss an Teplitz were found particularly susceptible to attacks of the midge. After considerable experimental work, Mr. Koch adopted mulching four inches deep with tobacco stems. It is applied after the first summer hoeing, about mid-June, and spaded under after frost in autumn. Where the mulch becomes thinned or shifted in the course of the summer, additional applications are made. This, he found, prevents hibernation of the pest. Last summer but few larvæ and few injuries were found. For the greater security of other varieties, it was found necessary to remove Gruss an Teplitz from Douglas Park entirely in 1915.

Smoke has been found an almost insuperable obstacle in rose-culture. Hence the large plantation in Douglas Park is restricted to only two varieties: Pink Killarney and Mme. Caroline Testout. The former has by no means proven satisfactory there, but extended tests have not, so far, indicated a more resistant pink variety.*

This suggests the urgent need of rose test-gardens, both for the lighter soils and for the clays of the Chicago district. The existing park systems do not admit of these, for they are entirely in densely populated sections of the city, undesirable, both on account of atmospheric conditions and for esthetic reasons. A public park, to serve its ends, must be a pleasant sight at all seasons, an utter impossibility under the trying conditions of soil and climate. Hence, rose interests in general should concern themselves with the establishment of such grounds at various points around Chicago.

*See reference in "Rose-Notes" to Mr. Koch's important work in controlling rose midge and in combating smoke.



Portland's New Municipal Rose-Garden

By HON. GEORGE L. BAKER
Mayor of Portland, Ore.

EDITOR'S NOTE.—The establishment of the new municipal rose-garden in Portland marks, it is believed, an epoch in rose-growing. As will be noted below, the garden is intended for the testing of new roses rather than for the display of older varieties. Obviously, tests thus made, under the conditions of good handling and keen interest prevailing in Portland, will be of great value.

Mayor Baker, who has honored American rose-growing by preparing the paper which follows, is an enthusiastic rose-grower, we are informed by Mr. J. A. Currey, who originated the plan for the new Portland garden. Mr. Baker managed the Portland Rose Festival in 1914, and has participated in all the rose events of the notable city he now governs.

The attention of rose-breeders is very particularly directed to what follows, and to the opportunity there presented.

WITH what we believe ideal rose climate, with the best care and attention expert rosarians, both amateur and professional, can give, with the best soil preparation that science can devise, Portland, Ore., invites the world to send its roses to the new municipal rose-garden. If they prove worthy under these conditions they will receive a suitable award from the municipality.

This new garden has been designed with the idea that the creator of new roses, if his creations prove of benefit and pleasure to mankind, is entitled to some reward other than that gained through the commercial superiority of his creation—a reward that will be written forever on the pages of rose history, and with a suitable accompanying token which he can hand down from generation to generation as a mark of his accomplishment. Being the foremost city in the country to pay homage to the rose, the citizens of Portland have felt that such a garden and such rewards should be established to the honor and for the benefit of those who, through patience, thought, and study, create the new roses. It is probably the first competitive rose-garden ever established by a municipality, and its success will depend on the encouragement it receives from the makers of new roses throughout the world.

For two years plans for this new departure in municipal rose-culture have been considered, and as the result of hearty co-operation by the rose-growers of Portland with Park Superin-

tendents James O. Convill and C. P. Keyser, the details have been carefully worked out. The site selected in Washington Park, the most popular of our various parks, was decided on only after a score or so of locations had been carefully inspected by the leading expert growers of the city, who considered it best because of its elevation—about 800 feet above sea-level—its orientation, its protection from distressing winds, the superior soil, the natural drainage, its accessibility (being only fifteen minutes by trolley from the heart of the city), and the abundant supply of rich, clean manure from the elk, buffalo, and other herds of the zoölogical gardens which are located in the same park.

In the site reserved for the rose-garden and its probable extension, there are about ten acres, but at present only a little over two acres will be used. *This new garden will be devoted only to the cultivation, care, and development of new roses, or those which have not been in commercial use more than one year prior to being sent to the garden for testing.* The roses will be given three tests, and the treatment they receive in each case will be varied. In the first test the roses will be given the same care and attention they would receive in the average garden under the care of the average amateur, this test being designed to show the possibility of the new rose under what is termed "ordinary care." The second test will be under the best expert direction the city of Portland can obtain, and the plants will be given special soil-treatment, pruning, spraying, and protection, so that they may develop to their fullest possibilities. The third test, which will be conducted at a distance from the other two sections of the garden so as to prevent contamination, will be designed solely to ascertain the disease-resisting qualities of the new rose. The score made by the new rose under these conditions, it is believed, will show its true value for outdoor culture. The superior roses each year, both dwarf and climbers, will receive suitable medals and other tokens from the city of Portland and the organizations coöperating with it to make the new garden a success. While medals and other rewards cannot be given to all roses in competition, every rose which attains a certain degree of perfection will be given a certificate of merit.

After a rose has successfully passed the Portland test, it

will be taken into a permanent collection, which is to be an added feature of the garden. In this permanent collection the roses will be gathered and arranged according to their origination, so that the plant-breeder and his accomplishment can be identified together, thus making a lasting record of his achievement.

In formulating the rules governing competition, which are obtainable on mail application to the Bureau of Parks, the city of Portland has endeavored to hold out a welcoming hand to the amateur as well as to the professional, and in doing so has had the support of the Portland Rose Society, which annually will reward the amateur creating the best rose tested in the garden with a suitable token as marking his achievement. Likewise, to encourage the origination of roses in Oregon, Washington, and California, there will be special prizes offered for new roses from the Pacific Coast States, these prizes being donated by the Portland National Test-Garden Association, an organization representing the entire city and organized for the special purpose of seeing that the new garden is firmly established and perpetuated through changing city administrations.

In arranging the competitive rules, the committee which assisted the Park Bureau has endeavored to cover all points; but I desire to say, as Mayor of the city, that I trust any rose-growers, if in doubt on any point, will write for information to the Park Bureau. The city desires that it be fully understood that this new garden is an experiment, that it is something that probably has never before been attempted in an American city, and that the entire scheme had to be hewn from the rough; and while it has been given careful thought and study, there may be points which time and experience may show need correction. I am sure that the city of Portland and its Park Bureau will welcome criticisms and suggestions for improving and extending the scope of the new garden.

In arranging for the garden, the city has endeavored to provide direct reward to the originator of new roses, but at the same time realizes that this is not always possible, for the reason that frequently new roses are purchased as seedlings and pass out of the hands of their creator and to those who are to propagate them and place them on the market. In all cases where title to the rose has passed from the originator to someone else, the entry

for that rose can be made by the person or firm handling it; but in so far as it is possible it is the hope of the municipality that the reward shall go direct to the breeder. The propagator in practically all cases will receive his reward from the advertising value the rose will have if it successfully passes the Portland test and attains a position of permanency in the new rose-garden.

As previously noted the new garden will contain only the newest roses—those not yet in commerce or which have not been in commerce more than one year. I desire to assure growers who send plants to the new garden that their plants will receive every care and protection possible. Special pains will be taken to prevent the taking of buds or slips of any plant under test, the city endeavoring to give the plants the same protection as they would receive in the garden or nursery of the original grower.

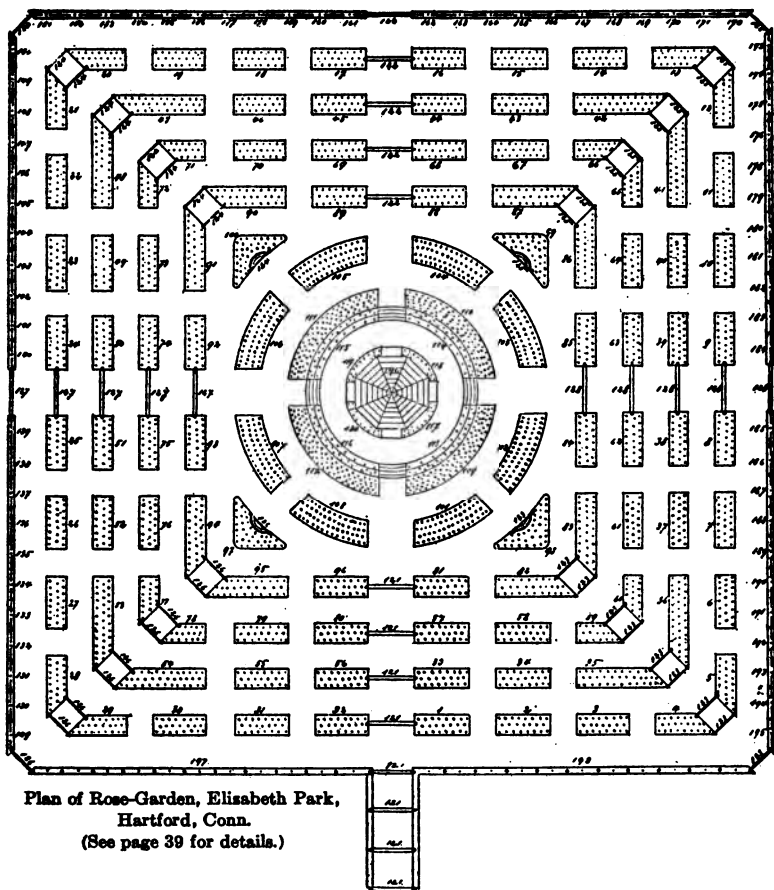
The rules and regulations governing the garden and the competition have been incorporated in a pamphlet which can be secured by addressing the Bureau of Parks, Portland, Ore., U.S.A. I know the Editor of the American Rose Annual would publish these rules but for the pressure upon the pages of the 1918 issue.

Great Public Rose-Gardens

By THE EDITOR

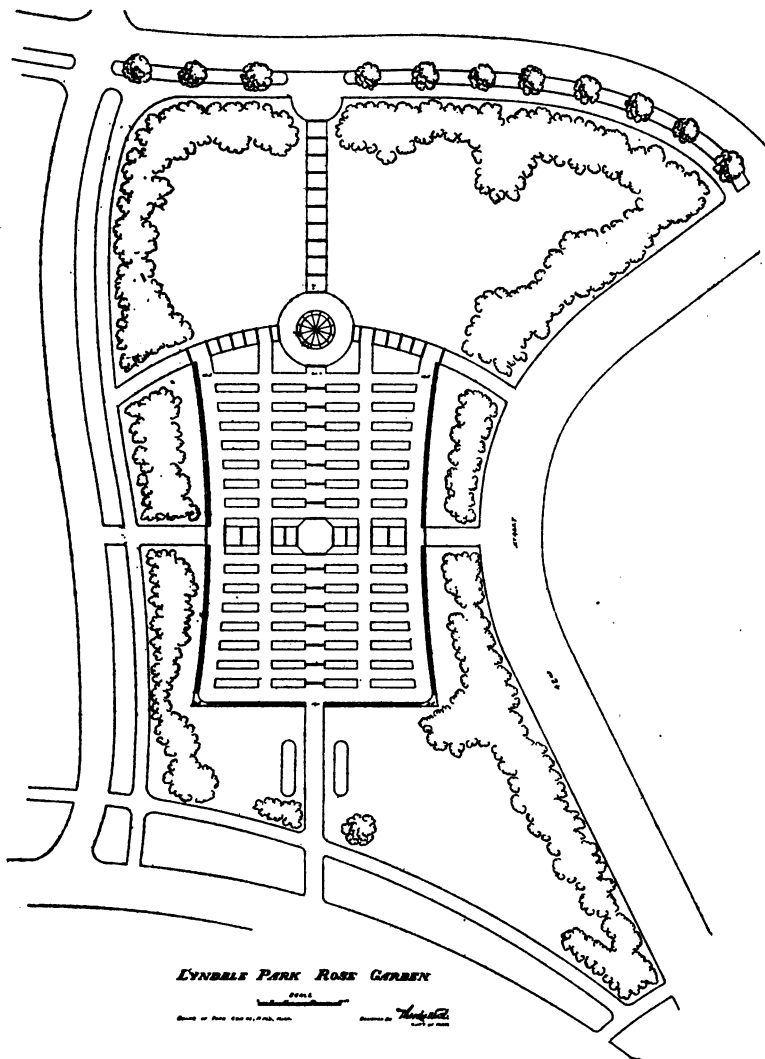
NOTHING seems to have so excited the admiration of our English friends in American rose-culture as our public rose-gardens, including the specific rose test-gardens. Elsewhere in this Annual will be found a comment from the *London Garden* on this situation, together with the expressed wish that there might be established in Great Britain a national rose test-garden, in memory of the late Edward Mawley, who served the National Rose Society as secretary for thirty-seven years, then becoming its president until his death in 1916.

The mayor of Portland, Ore., recounts in this issue of the Annual the unique plan which is being worked out in that city of roses for a great test-garden. New Haven, Conn., is in the throes of planning a rose-garden, and the Chamber of Commerce of Auburn, N. Y., is thinking in the same direction.

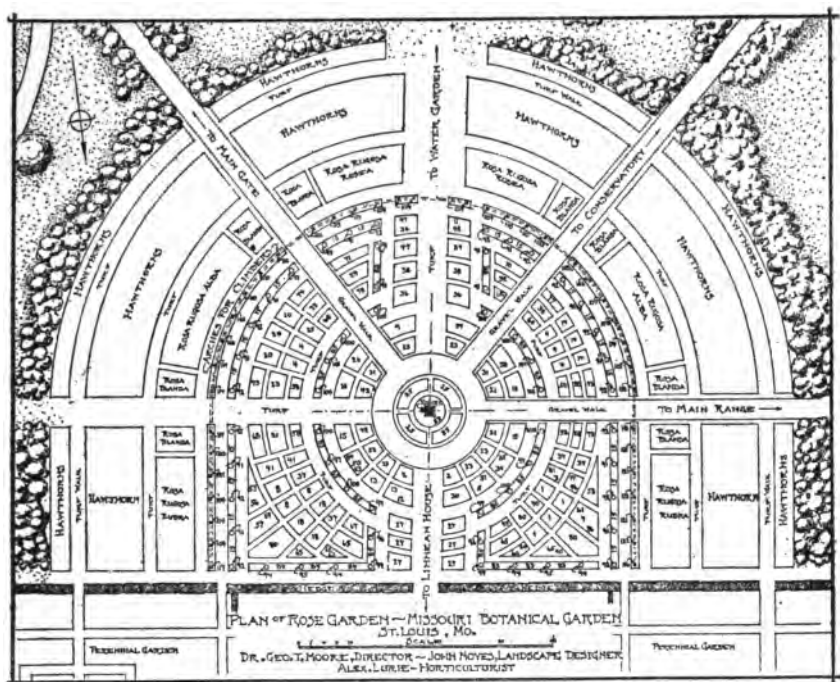


For the information of those who may be interested, it seems worth while to show in accompanying pages the plan of arrangement of several of the existing public rose-gardens of America.

The Elizabeth Park Rose-Garden in Hartford, Conn., was designed, constructed, and planted in 1904 by Theodore Wirth, then the park superintendent. It has been extraordinarily successful in attracting visitors and in promoting rose-growing. In the 1916 American Rose Annual the statement was made that "An acre of the rose-garden attracts about 85,000 people each year, or at the ratio of two persons per square foot of area."



Plan of Lyndale Park Rose-Garden, Minneapolis, Minn.
(See page 40)



Plan of Rose-Garden in the Missouri Botanical Garden, St. Louis, Mo.
(See page 40)

The plan on page 37 shows the arrangement of this garden. The rectangular blocks are the actual test-beds, containing mostly Hybrid Perpetual roses. Beds Nos. 97, 98, 99, 100, 197, and 198 include standards, with the beautiful dwarf Multiflora rose, Midget, for underplanting. The Hybrid Tea roses are in the beds immediately about the circular summerhouse, which is distinguished by its covering of climbers, these likewise being used for a series of arches across the diagonal paths, with a result of great loveliness in bloom-time.

It was quite natural that when Theodore Wirth, whose love for the rose and genius for its landscape use made the Hartford garden what it is, was himself transplanted to Minneapolis, he should there soon establish a rose-garden, even though the climatic limitations of Minneapolis are notably severe. On page 78 of the 1916 Annual Mr. Wirth gives the details of this gar-

den, work on which was begun in 1907. As may be noted by the accompanying plan of the Lyndale Park Rose-Garden, the arrangement is a combination of a formal garden with graceful shrub and tree setting. There are sixty-four beds in the garden, each planted to but one variety, there being forty-eight of Hybrid Perpetual and sixteen of Hybrid Tea sorts. The four larger beds at the upper end of the garden include Hybrid Rugosas, Sweetbriers and single roses.

The garden enclosure is of trelliswork, upon which climbers are trained.

The slopes of the Lyndale Park garden and the adjacent ground are planted in wild roses. Indeed, as Mr. Wirth writes, "You enter, so to speak, through an enclosure of wild roses into the inner field of cultivated hybrids."

It is hardly necessary to say that the people of Minneapolis flock to this lovely place at the time of its blooming maximum.

The interesting rose-garden in Humboldt Park, Chicago, is well described in Mr. Heide's article in this Annual. The treatment, it will be noted, is rather more formal than in Lyndale Park.

Few American rose-lovers realize that St. Louis also has a public rose-garden in the so-called "Shaw Gardens," properly known as the Missouri Botanical Garden. This St. Louis garden is practically new, having been planted in the fall of 1916 and the spring of 1917. It is the focal point of interest in the main portion of the grounds. Mr. John Noyes, the capable landscape architect who had to do with its design and planting, writes: "It is on an easy incline of about $1\frac{1}{2}$ per cent slope toward the north. It will present its best effect as a unit when the border plantations of hawthorn and hardier roses are at their maximum height."

One hundred and twenty-two varieties of roses, including Hybrid Teas, Hybrid Perpetuals, and all the other classes, are to be found in this developing St. Louis garden, open to all the people.

These great gardens cannot but have a stimulating effect on rose-growing. There should be many more of them in the United States.

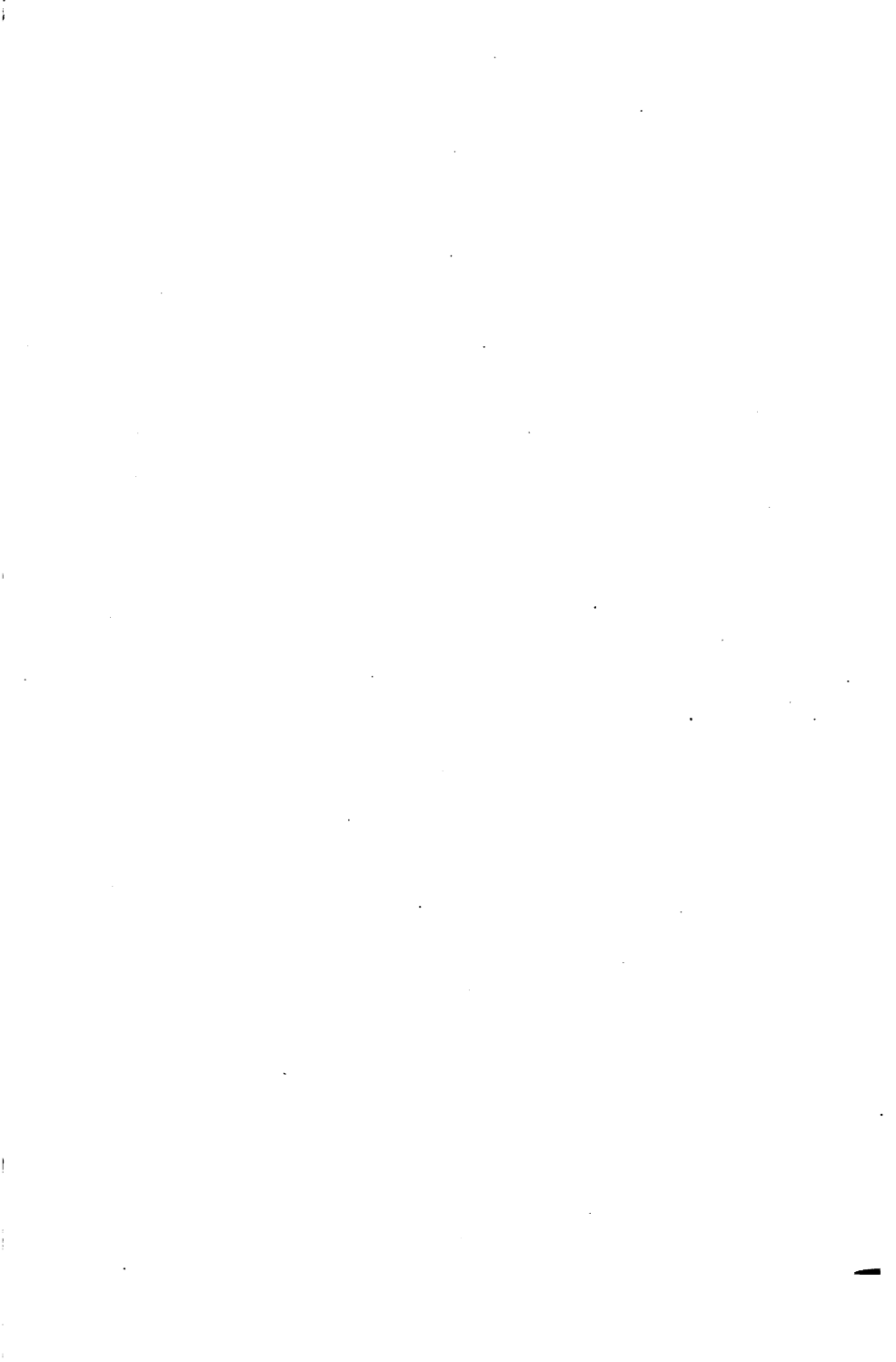




PLATE IV

Crown-canker lesions on rose plants. A, stem of an *Ophelia* plant artificially inoculated with mycelium of fungus; B, *Hoosier Beauty* plant showing cracking at crown; C, *American Beauty* plant showing black water-soaked area at crown. A and B, natural size; C, three-fourths natural size. (See page 65.)

Rose Species Observations at Highland Park

By JOHN DUNBAR

Assistant Superintendent of Parks, Rochester, N. Y.

EDITOR'S NOTE.—Next to the famed, but not sufficiently visited, Arnold Arboretum at Jamaica Plain, Mass., probably the most interesting shrub collection open to the public in America is that in Highland Park, Rochester, N.Y. Many plant-lovers know that its collection of lilacs is the largest in the country, and that these lilacs attract great throngs for many weeks. The showing of *Philadelphus* and of *Deutzia* is also notable, but the rose relations of Highland Park seem to have been overlooked. Mr. Dunbar, to whose ability and devotion are due the success of the shrub collections in this great pleasure-ground, has written for us his observations on the newer rose species, including those of particular value and importance for landscape effects.

ROSA *acicularis nipponensis* came to us under the name of *R. nipponensis*, but we observe that an authority places it as a variety of *R. acicularis*. It has single red blossoms which are somewhat cup-shaped, and are about two inches across. The flower-stalks and branchlets are very bristly. It was in bloom June 24.

Rosa caudata has grown to a height of five feet and has a much-branched, lax habit. The leaves are composed of seven to nine leaflets. The flowers are red, occasionally with a tinge of rose. It was in full flower July 9. It has peculiar oblong tapering fruits.

Rosa Fedtschenkoana has spreading branches which are slightly arching. The leaflets are seven to nine. The white flowers are from two to two and one-half inches across, and are in bloom about June 13.

Rosa Hugonis has been highly spoken of as one of the most important of the new roses introduced from western China. The leaflets are usually from five to eleven. The single yellow flowers are produced in great abundance along the branches and are remarkably ornamental. It flowered with us last year for the first time, and was in bloom on June 2. As last season was a very late one, *R. Hugonis* would ordinarily be in bloom from May 15 to 20, and is therefore remarkable for its early blooming.

Rosa Jackii has a spreading habit, with the young branches

at first ascending. The leaflets usually are from seven to nine. The white flowers, with showy yellow stamens, are in clusters, and are three-fourths of an inch to two inches across. It was in full flower about June 9. This species is very showy in flower.

Rosa macrantha. We first procured this rose from Ireland twenty-three years ago, but, through some accident, we happened to lose it. Recently it was again obtained from the same source. It has single large light pink flowers three and one-half inches across and usually in clusters of four. It was in full flower July 9. It is said to be a hybrid between *R. canina* and *R. gallica*.

Rosa Moyesii is said to attain a height of ten feet, but it is not over three to four feet with us at present. The leaves are composed of seven to thirteen sessile leaflets. The blossoms are usually solitary, dark red, and are from two to two and one-half inches across. It was in full flower June 26.

Rosa multibracteata is an intricately much-branched bush. The leaflets are very small and are usually from seven to nine. The rosy pink blossoms are about two inches across and occasionally appear from three to four in a cluster. It is in flower about July 9. In its dense habit, and with branchlets thickly covered with the small leaves, it has considerable ornamental value apart from the flowers.

Rosa multiflora cathayensis blossomed freely with us last season for the first time, and was of much interest. This form differs from the type in bearing pink flowers which are two inches across, with ten to twelve in a cluster.*

Rosa omeiensis is a vigorous-growing shrub, with branches spreading and upright. The leaflets vary from nine to seventeen. The young branchlets are very bristly. The small white flowers are solitary and are about one inch across. It is in bloom about June 6. The leaves and leaflets of this rose are so disposed that they produce a very pretty fernlike effect, which is highly ornamental. A variety of this species is known as *pteracantha*, in which the upright young shoots are thickly covered with prominent red spines, conspicuously winged at the base. It is very ornamental.

Rosa sertata is an upright branching shrub with pale branches.

*This interesting rose, the original type from which Crimson Rambler arose, was illustrated in the 1916 American Rose Annual, facing page 40.—Editor.

The leaflets are seven to eleven. The rose-pink to pink blossoms are two inches across. It is in full bloom about June 13.

Rosa setipoda is a vigorous upright-growing shrub with a somewhat loose habit. The leaves have seven to nine leaflets. The rosy pink to pale pink flowers are borne in clusters of four to five, and are in bloom about July 4. The oblong bright red fruits, with a long tapering apex, are very showy in the autumn.

Rosa Sweginzowii comes into bloom with the early-blooming species and has a spreading habit. The leaves have usually seven to nine leaflets. The flowers are usually five to six in a cluster, are lilac-rose to pink, and are from one and a half to two inches across. It is in full bloom about July 10. This is a very ornamental rose in bloom.

Rosa Webbiana is an upright branching shrub. The leaves have a distinctly glaucous appearance. The flowers are blush-pink and are about two and one-half inches in diameter. It is in full flower about July 9.

Rosa Willmottiae sends out stout spreading stems covered with numerous branchlets. The small leaflets are crowded and are usually seven to nine. The rose-purple to rose-pink flowers are four to five in a cluster, and are produced in great profusion. This is one of the most ornamental of the new Chinese species introduced by Mr. E. H. Wilson. The numerous branchlets covered with myriads of flowers produce a beautiful effect. Said to be tender at Boston, but does very well at Rochester.

Notes from the Rose Firing-Line

By W. VAN FLEET

Department of Agriculture, Washington, D. C.

EDITOR'S NOTE.—Those who have followed Dr. Van Fleet's records and observations through the 1916 and 1917 Annuals will find encouragement in these notes. None of the other hybridizers are dealing, so far as we can ascertain, with the new species material received from China in the past six or eight years.

OUR rose-breeding work in 1917 consisted chiefly in developing the hybridizations effected in the spring of 1916 at Chico, Cal., and Glenn Dale, Md., and in making further combinations at the latter place between new hardy Chinese species and the finest modern show and garden varieties. Pol-

len from the extensive collections of the National Rose Test-Garden at Arlington, Va., was freely used and with very apparent good results. The successful hybridizations, as judged by the sound fruits collected at the end of the season, numbered about 2,500. Several thousands of crossings on newly established species failed, but enough succeeded to represent nearly all combinations that appeared desirable at the time.

The seeds are principally grown in frames and beds under lath shade, and in the open air, retaining natural conditions so far as possible, but the results of certain of the more difficult crosses were planted in pots under glass. The tardy germination of many kinds of rose seeds is very trying. A small proportion of the seeds taken from the hips of Multiflora, Tea, and Wichuraiana varieties may promptly germinate when grown under favorable conditions, but rarely all. Many will be delayed until the following season, and others may not sprout until they have been in the soil several years. Seeds of the great majority of rose species, native and exotic, and their hybrids, consistently refuse to grow until the second year after planting, and individual seeds have been known to "hang fire" for as long as seven years, growing with full energy when they did start.

We find it advisable to keep all sowings of rare hybridized seeds in view for at least five years. Only those bearing labels previous to 1913 will be discarded the coming spring, and then only if careful examination fails to show sound seeds. At the head of the list for quick germination may be placed *Rosa multiflora* and at the end, *R. laevigata*, the Cherokee rose, seeds of which have never sprouted until the third year under any treatment we could devise. Seedlings require from one to four years of growth to show their full characteristics, though ever-blooming varieties often attempt to bloom within a few weeks after coming up.

These observations are made to explain in part the slow progress made in developing hybrids from the newly introduced Asiatic roses. Further delays are caused by the time—often three or four years—needed to establish the recent introductions and grow them to vigorous fruiting sizes, and also to propagate desirable hybrids when at last they have been obtained. Much time is also consumed in effecting certain crosses among annual

bloomers where there is little apparent natural affinity. Certain crosses may fail *in toto* for several successive seasons, only to yield in the end to persistent effort, while other desired combinations are so difficult that the worker comes in the end to regard them as impossible under his working conditions.

Making all allowances for the difficulties and limitations of the work, we regard the hybrid rose seed crops of the past two seasons as the most promising yet harvested and trust that time will show this estimate is not an error.

As regards the character of the work, greatest efforts were expended on *R. rugosa*, *R. Hugonis*, *R. pomifera*, *R. Wichuraiana*, and *R. bracteata*, though more than twenty other native and exotic species have been interbred and crossed with practically all the best and newest garden roses of the hardier classes, including Hybrid Teas, Hybrid Perpetuals, and Hybrid Briers. Of the newer species, *R. Soulieana* shows best results, giving, in combination with *R. Wichuraiana* and the white-flowered form of *R. lucida*, single and double blooms of the most perfect finish and in boundless profusion on vigorous and healthy plants. *R. Moyesii* has shown that it can impart its striking deep red color to its hybrids, and some fine things may yet be developed. *R. Hugonis* still proves refractory, the hybrids losing yellow coloring to a great extent, but showing improvement in form and substance of bloom. Several hundreds of hybrids with other yellow roses, and thousands of chance or self-pollinated seedlings, are under way, and there is a possible prize among them. Harison's Yellow has yielded just two fairly vigorous plants out of the thousands of seeds sown the past seven years, and it is hoped that some light may eventually be shed on its parentage. We look for desirable everblooming garden types among the great number of *Wichuraiana* and *Rugosa* hybrids now in existence.



1917 Rose-Work in England

By HERBERT L. WETTERN, London, England

EDITOR'S NOTE.—The chatty and delightful article which follows is an earnest of the truly international rose relation now coming about. Mr. Wetttern is a busy granite manufacturer of London, yet he has found time to so engage in rose-growing as to take many prizes. In his letter to the Editor he writes: "There being no national show this year, and therefore no challenges, I still retain my title of Amateur Rose Champion of England and holder of the Amateur Rose Trophy, which I won both in 1915 and 1916; and when peace comes I shall hope to continue my title."

WITH everyone thoroughly engrossed in the war in thought, word, and deed, there has been no rose season this year in England, and our plants have received but scant attention. Keeping them alive is about all one has the heart to do! Feeding and regularly hoeing have had to give place to vegetable culture; but the roses are not forgotten entirely, and one looks at them affectionately with thoughts of happier and victorious days to some. The weather has been quite phenomenal. At planting-time, unless one was an early bird and finished planting before Christmas, practically no opportunity occurred till mid-April, for it is many years since we went through such a severe winter as the first months of 1917 proved to be. Hard frost and snow held sway and kept the earth ice-bound until, during the first fortnight of April, one began to despair. Would the weather ever break and Spring smile on us again?

The curtain was drawn in the middle of April, and a glorious spring ensued, with few night frosts to keep things back. Our roses then started off with a rush, and a beautiful warm May brought the plants into bloom a fortnight earlier than the average. Had there been any rose shows, everyone would have been hopelessly at sea as regards dates, for our second blooms were coming along by the middle of July!

With July came rain, and the remainder of the summer was generally wet, so that growths have been good and wood is now well ripened.

Rarely have we had a year so immune from diseases and pests. Except for a touch of black-spot, neither greenfly nor

mildew has worried us as it generally does; and lucky it was, too, for everyone was spraying potatoes for all he was worth, and there would have been neither time nor labor to do both.

One missed the rose shows—the meeting-place of brother rosarians, where we formerly compared notes and scrutinized severely the exhibits of new roses; one can therefore only express an opinion of new varieties by one's own experiences. I set down here a few memoranda concerning the newer roses.

Margaret Dickson Hamill promises to be a beautiful bedding rose, blooming profusely even in October.

Mrs. C. E. Salmon is a fine single pink somewhat similar to Queen of the Belgians.

Climbing Irish Fireflame is a grand introduction. It is not a tall climber, but bushy, and must be left to grow quite freely.

Clarice Goodacre will give blooms for the exhibition box, as well as being a suitable bedding rose.

Paul's Scarlet Climber is as strong as good old Carmine Pillar.

The size of Modesty blooms was disappointing after seeing those originally shown by the raisers.

Mlle. Louise Crette is a grand exhibition rose of Druschki type, but with a slightly yellowish tint.

The growth of Ulster Gem is not so strong as one might have expected.

Isobel is said to be good, and the new single red "K. of K.," which Alex. Dickson & Sons have put on the market, quite took our fancy. Similar to Red-Letter Day, but slightly larger, it will indeed be worth growing if it can surpass it for beauty, growth, and free-flowering.

This season we are buying very few plants, so our experience with new varieties next season will be even less than this.

However, if we may look forward to peace in 1918, what a year that will be for roses, and how we shall throw ourselves more heartily than ever into our rose work!

A word of appreciation of the American 1917 Rose Annual: "Well begun, well done!" Your little book is full of interest, and, above all, your reports of test-gardens sound like dreams. Would we could induce the powers that be to go and do likewise in England!

Our City of London Rose Society has, on somewhat similar lines, established rose-gardens which its members supervise and report on; but at present our municipal authorities will not go so far as to permit parts of public gardens to be utilized as test-grounds, though there is no doubt whatever but that the public would appreciate them, judging by the interest and copi-

ous notes taken in our municipal rose-gardens—the stepping-stone, we trust, to test-gardens. If plans of some of your test-gardens, which presumably form but a part of a beautiful rose-garden, could be published in another year's Annual, our interest would be increased considerably.*

The following adventure of some American roses in England might be of interest:

In correspondence with your literary rosarian, Mr. G. C. Thomas, Jr., on the subject of brier stocks, he suggested that I should try some plants budded on Polyantha stock, and was kind enough to dispatch me a case of eighty plants from America on April 20 last. They arrived at Liverpool at the end of May, but, as the importation of plants here is prohibited, I had to make representations to our Board of Trade before they were released. They ultimately reached me on July 2. Good packing—how necessary it is—had kept them fairly moist, and, after soaking them in water for twenty-four hours, I pruned them hard—root and growth—and planted them in a reasonably shady spot. Luckily, the weather kept cool and somewhat wet, so that they nearly all started off into growth. They were in full bloom on August 25, and these American plants are now, side by side with their English cousins, ripening off to face an English winter! A couple of plants of your new rose, Los Angeles, have done especially well, and we can congratulate you on the production of this beautiful new variety, which should quickly leap into popularity, for roses of this character are wanted. Like *Oliver Twist*, we ask for more of them.

*Taking the hint, there are published in this Annual plans of four great public rose-gardens—in Hartford, Minneapolis, Chicago, and St. Louis.—EDITOR.

English Rose-Growers and the Great War

By THE EDITOR

WE in the United States have experienced in the past few months certain limitations and restrictions by reason of the Great War which have seemed to be hardships. High prices, slowed-up transportation, coal-shortage, food-saving suggestions, Liberty-Bond sales, the selective draft, have all

made the war for our own defense quite apparent to us. Some of us have grumbled, yet mostly there has been cheerful realization and helpful acquiescence.

But we know nothing yet of war's demands and sacrifices! What we have experienced is as a mere wisp of summer cloud compared to the lowering actualities under which our English and French allies have lived for upward of four fateful years.

To make only the commercial phase of the situation apparent, a survey of English rose catalogues has been undertaken. Following are brief references to war conditions from a number of these publications. It is impossible to avoid admiration of the cheerful, resolute tone in which the inconveniences of the time are mentioned. Will we measure up as well to the situation, as it actually touches us?

"It is with great reluctance that, owing to the scarcity of paper and difficulties of printing, and the restrictions the Government has placed on the sending of price-lists, I have suspended temporarily the issue of my Rose Guide in its usual elaborate form."—*Edwin Murrell, Portland Nurseries, Shrewsbury, Eng.*

"Owing to the shortage of paper, and to meet the requirements of the Government, we are not issuing a new Rose Catalogue this season."—*John Jefferies & Son, Ltd., Cirencester, Eng.*

"This abridged list, with short color descriptions, is the only catalogue which will be issued by us this year. The restrictions put in force to conserve the paper supply, and the natural desire of all to economise during the war, will be sufficient reason to our patrons for the very bald descriptions given."—*Hugh Dickson, Ltd., Royal Nurseries, Belfast, Ireland.*

"To comply with the restrictions upon the use of paper for publishing trade lists, we have this year cut our Catalogue down—leaving out all illustrations and condensing the matter considerably."—*R. Harkness & Co., Hitchin, Eng. (G. H. McGready).*

"In these times of retrenchment a certain amount of discretion may be used with advantage, otherwise too much cutting down may easily defeat the object in view. It will, for instance, be far wiser to fill up gaps and make good the rose-beds generally, than to entirely neglect them and let the whole rose-garden go to ruin for want of a little help.

"Although a large number of our employees have joined the forces, we still have some skilled hands who have been with us for many years, and we feel confident of being able to carry out all orders with our usual care."—*Benjamin R. Cant & Sons, Colchester, Eng.*

"Another year [1916-17] has passed away, which will be remembered by us all for many years to come as being the most difficult, and the most critical, during the present war; but, thanks to our brave soldiers and munition workers,

both men and women, we have now overcome the worst, and everything points to victory. May it come soon—or before I have to compile another catalogue.

"Last year [1916] I had to record that seven of my men were serving their King and Country, but now more have gone forward to help in this great conflict, and those whom I have left are either too old, or unfit for the strain, so I can say, I have done my share. In spite of losing so many skilled hands, . . . I have been doing my bit to keep Twyford Roses to the front, and they have come out with flying colors."—*Elisha J. Hicks, Hurst, Twyford, Berks, Eng.*

"Owing to printing restrictions, I am obliged to omit many names from my Catalogue, but I can supply most of the old varieties of merit."—*Walter Easlea, Danecroft Rosery, Eastwood, Leigh-on-Sea, Essex, Eng.*

"In order that we may comply with the restrictions in force, and the general and natural desire for economy during the war, our Catalogue has been considerably reduced in size, with a short descriptive color note to each variety."—*Samuel McGredy & Son, Royal Nurseries, Portadown, Ireland.*

"To comply with the restrictions upon the use of paper for publishing trade lists, we have been compelled to abridge our Annual Catalogue.

"Retrenchment—if it is not to do more harm than good—should be done with discretion. The total excision of any particular item of one's budget without regard to the ultimate consequences is, we submit, a grave economic mistake.

"To take our own case, sixty per cent of our staff have [1917] enlisted voluntarily—some of whom have already made the supreme sacrifice and gone to their reward; but the others, we fervently trust, will return and will expect, and justly expect, to find their places waiting and the conditions of employment as in pre-war times, or, if possible, rather better. This can be done only if the public help to keep all our industries going—and going with vitality—to step into line at the close of the war and push ahead."—*Alex. Dickson & Sons, Ltd., Haulmark, Newtownards, County Down, Ireland.*

*The rich sweet pea, the iris blue,
The larkspur with its peacock hue;
All these are fair, yet bold I will
That the rose of May is fairer still.*

—MARY HOWITT.

Methods of Rose-Breeding

By E. A. WHITE

Department of Floriculture, Cornell University; Secretary American Rose Society, Ithaca, N. Y.

EDITOR'S NOTE.—The extended inquiry as to the actual detail of rose-breeding is indicative of the rapidly growing rose interest in America. To afford amateurs opportunity to enter the fascinating domain of hybridizing, Professor White has kindly set forth for us the essentials.

REFERENCES to rose-breeding which have been made from time to time in the American Rose Annual and other horticultural publications have occasioned a number of inquiries, especially from amateur rosarians, as to the methods practised in crossing different varieties of roses.

That one may work carefully and systematically in breeding any plant for improvement, a knowledge of the botanical relationship of each particular species is essential. Marked improvement cannot be expected between groups of plants unless there already is close relationship. Crosses between species may occasionally produce seeds, but, as a general rule, the resulting plants are weak or exhibit characters inferior to either parent. Only crosses between different varieties of the same species usually give the best results.

In breeding roses, one ought to know the relationship and characters of the different groups and then decide with which particular group he desires to work. The section of the country in which a breeder is located may so influence the conditions as to make it desirable that he select some particular group, such as the Hybrid Teas, the Hybrid Perpetuals, Multifloras, Wichurainas, or, in fact, any one of the many other species. After deciding on the group, a careful study should be made of the qualities of the best varieties already in the group. An ideal ought then to be established and an attempt made to produce a variety better than any already existing including improvements in hardiness, floriferousness, petalage, color, fragrance, or any one of the many virtues which one looks for in the rose.

For information as to the best groups with which to work, the reader is referred to Dr. Van Fleet's excellent article in the

Rose Annual for 1916, "Possibilities in the Production of American Garden Roses."*

Having decided on the parentage of roses for breeding, the next essential is to choose strong, vigorous individuals in each cross. That "like produces like" is very true in rose-breeding. The best possible cultural conditions must be given the parent plants, so there may be no tendency to disease, and so that the seed-pods resulting from the cross may be large and plump, the seeds of good size and with strong germinating powers. The resulting seedlings from such a cross will germinate more quickly and produce much more sturdy little plants than will those from poorly nourished individuals.



FIG. 1. A bud sufficiently developed for emasculation

The plants for crossing may be raised from cuttings, or they may be purchased from a nursery. They should be well established in pots or in beds before the crossing is done. Under glass the plants are often pot-grown so that they may be easily transferred from one temperature to another, and the ripening of the pods may thus be hastened or retarded. Several breeders, however, pollinate the flowers on plants which are either in solid beds or on raised benches. Out-of-doors, of course, the crossing is done on plants which are planted in beds.

Under glass the pollination may be done any month, with the exception of the resting-period during midsummer; but December and January are considered the best months, for at that time the plants have not been excessively forced and are therefore more vigorous. The seed-pods will develop and ripen rapidly during the warm days of spring. Out-of-doors crossing should be done in the early flowering period, in order that the seed-pods may ripen before fall.

After the pistillate, or seed-bearing, parent is selected and

*Also see Dr. Van Fleet's article, "Notes from the Rose Firing-Line," in this Annual.—EDITOR.

has developed a sturdy growth, if it be a Hybrid Tea or other solitary-flowered variety, but one, or at most two, flower-buds should be allowed to develop on a plant. If the parent is naturally a many-flowered species, with each flower single, of course more than one flower is left. Too profuse bloom, however, in addition to the production of the seed, may weaken the vitality of the



FIG. 2. The emasculated bud



FIG. 3. The stigma ready for pollination



FIG. 4. The pollen-bearing parent

parent and, consequently, that of the resulting seedlings. If one is working with cluster roses, one flower only in each cluster should be cross-pollinated, and the others should be removed.

When the bud is about two-thirds open (Fig. 1), and before the stamens have matured sufficiently to have shed their pollen, the petals and stamens are removed. This is spoken of in plant-breeding literature as *emasculation* (Fig. 2). The stigmas are then covered with a paper sack and left until they become sticky or mucilaginous. They are then *receptive* or ready for the pollen (Fig. 3). In covering with the sack, care should be taken not

to let the bottom or sides of the sack come in contact with the pistils, as that might injure them; and the sack should be roomy enough to allow the pistils to develop normally.



FIG. 5. The ripened seed-pod

As soon as the pistils are receptive, the sack is removed, and pollen from a flower having characters which it is desired to perpetuate in the offspring is dusted over the stigmas. (See Fig. 4.) The late forenoon is the best time of day for pollinating, for pollen is usually more abundant at that

particular time. A record of the cross is then made on a small tag which is attached to the plant (Fig. 5). The pollinated pistils are again covered with a paper sack for a day or two.



FIG. 6. The opened seed-pod

After pollination the seed-pod develops rather slowly, and it may be from one to three months before it is ripe. The length of time depends largely on the species with which one is working. Hybrid Tea roses often require three months to mature the seed-pod, while some single varieties ripen in a shorter period. It is essential to have the seed-pod well matured. This is indicated by a yellowing of the pods, and during the last stages of ripening they turn a deep yellow-brown (Fig. 5).

As soon as the seed-pod has matured it should be removed from the parent plant, opened (Fig. 6), and the seeds removed (Fig. 7). When ripe, the seeds should be soaked for about twenty-four hours in lukewarm water and sown immediately. If this is not done, the seed-coat quickly hardens and the percentage of germination will be low.

The seeds should be sown in a well-drained, sandy soil. Seed-pans may be used, and the writer has found small wooden boxes or flats to be satisfactory. Plenty of broken "crook" or drainage is placed on the bottom, and a few coarse screenings spread over the drainage. The soil for seeds should be about two-thirds sifted fibrous loam and one-third sand. It should be thoroughly mixed and at least two inches spread evenly over the screenings. The seeds are then scattered evenly and thinly over the soil and slightly pressed into it, after which they are covered with soil about a quarter of an inch deep. This cover-soil should be a mixture of



FIG. 7. The seeds ready for sowing
(Very much enlarged)

one-half sifted sod-soil, or leaf-mold, and one-half sand. The soil should then be thoroughly watered, the boxes or pans covered with a glass and placed in about 55° F., night temperature.

It is thought inadvisable to attempt to germinate seeds which ripen after the first of September, in the fall, unless glass areas are available. The seed-pods may be buried in sand and stored in a coldframe over winter. In early spring the seeds are removed from the pods and sown as already described. Freezing in winter will not injure the seeds of most species. If it does not seem feasible to store the seeds over winter in this way, they may be kept in the pods in a cool, dry atmosphere until about the middle of April. After being removed from the pods, the seeds should be soaked for two or three days, then sown in flats or seed-pans and placed in a coldframe out-of-doors.

As soon as the first "true leaves" are well developed, the seedlings should be transplanted into small pots or again into flats. The soil for this transplanting should also be of a sandy nature. A sifted sod-soil, enriched with one-third of its bulk of well-rotted manure and a sprinkling of bone-meal, is a good mixture. Heavy soil should have some sharp sand mixed with it.

After the first transplanting, the seedlings grow very rapidly, and in a few weeks a second transplanting will be necessary. The young plants should not be allowed to develop flower-buds, but the leading shoots should be pinched out to form stocky plants. The first buds which form are rarely normal and are by no means indicative of the value of the cross.

One must not be discouraged if the first results are not all that were anticipated. Out of a seemingly desirable cross there may be no individuals superior in any way to the parents. Again, there may be a large number of singles, when doubleness, or an increase in petalage, was the ideal sought. Occasionally, however, a somewhat single variety may show a wonderful color. Such a plant should not be discarded, but it should be selected as one of the parents for another cross, using as the other parent a very double variety of a similar color.

The rose family is one of complex relationships, and the results in breeding are uncertain. One can only carefully map out a plan of operations and then stick to the ideal year after year. Phenomenal results may come; they may not.

Stocks for Rose Propagation

By W. VAN FLEET

Department of Agriculture, Washington, D. C.

EDITOR'S NOTE.—Under present importing conditions, and for every rose-growing reason, the subject of "stocks" for rose propagation is of especial importance. It is hoped that the American Rose Society will before long undertake a comprehensive study of various stocks for roses in the various soils and climates of the United States. Dr. Van Fleet presents below his own experiences with all the usual stocks, and with several, particularly "No. 22449," not yet in commerce. In the 1917 Annual, Dr. Robert Huey gave the details of "Propagation by Budding," referring to the seedling Japanese form of *R. multiflora*. The whole subject will bear continued discussion.

THE great increase of attractive new roses, especially of the Hybrid Tea and Hybrid Brier groups, difficult to propagate by cuttings, layers, or other divisional method that retains or produces a vigorous natural root-system, gives increasing interest to the much-discussed subject of congenial stocks on which to bud, graft, or inarch the stubborn newcomers as well as a few prime old favorites that are known to possess the same unwelcome peculiarity. I say unwelcome, as I am confident rose-growers generally prefer for garden use plants thoroughly established on their own roots, showing their full individual habits of growth, and free from the suckers, distortion, and "die-back" almost universal with budded or grafted plants.

Stocks being absolutely necessary for increase of varieties that cannot effectively be propagated otherwise, a survey of the material available for the purpose appears in order. So many species and hybrids have been tried by commercial and amateur propagators that it may be convenient to group them according to their sources of origin. Those of greatest promise in the present state of our knowledge appear to be:

Native species: *Rosa setigera*, *R. carolina*, *R. californica*.

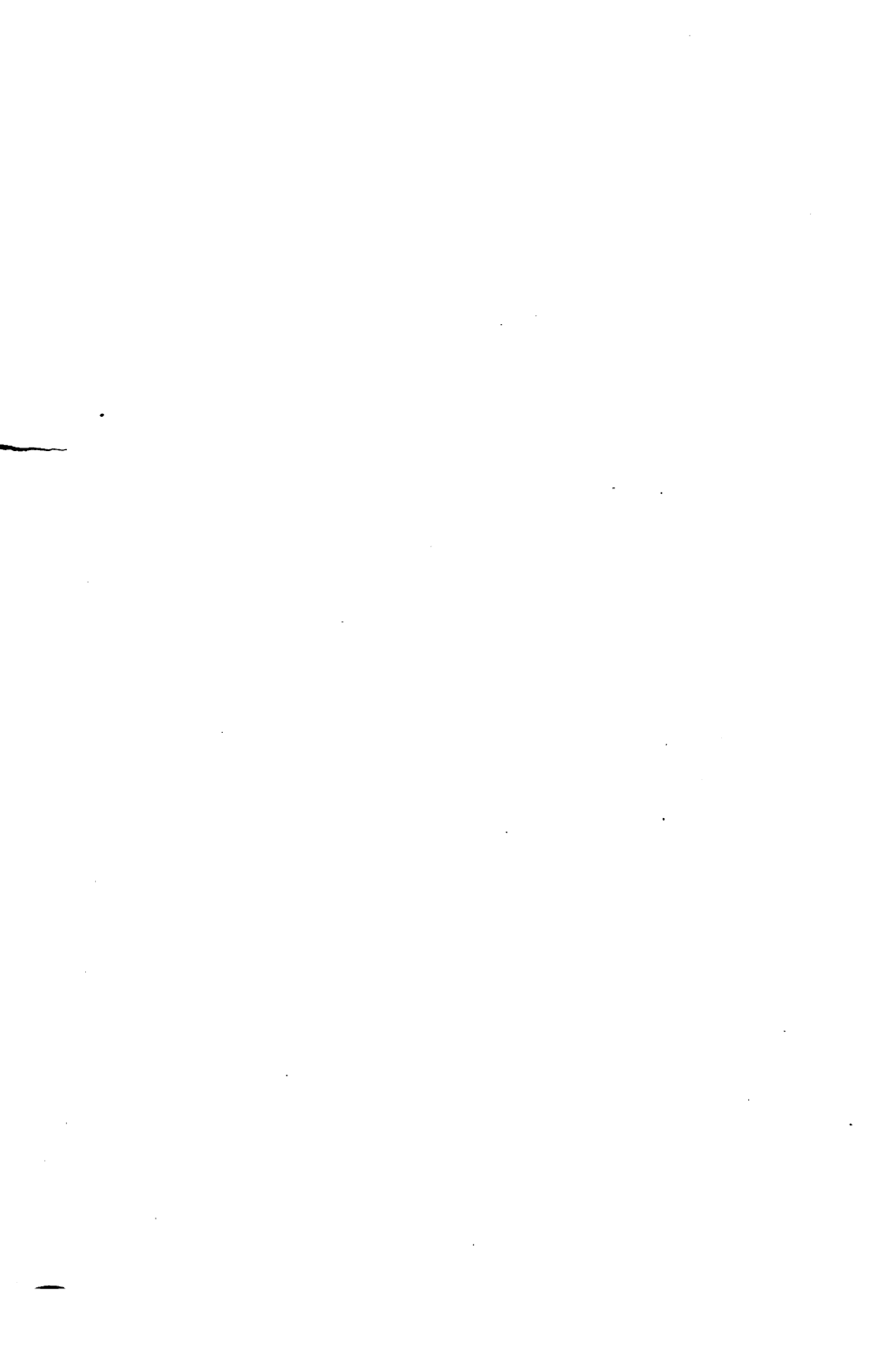
European species: *Rosa canina*, *R. rubiginosa*.

Asiatic species: *Rosa chinensis* (in its hybrid varieties, Manetti, Mme. Plantier, and Paul Neyron), *R. multiflora*, *R. odorata* (U. S. Foreign Seed and Plant Introduction No. 22449), *R. rugosa*, *R. Wichuriana* (Silver Moon), *R. laxa*, *R. Banksia*, *R. Leschenaultii*, *R. laevigata*.

No commercial use has yet been made as stocks of the native species above mentioned. *Rosa setigera*, the Michigan Wild or



PLATE V.—E. G. Hill's New Hybrid Tea Rose, COLUMBIA
(See page 96)



Prairie rose, has been tested by at least one florist as an experimental stock for winter-blooming varieties under glass, but with little success, the period of intense growth and profitable bloom proving too short. As a garden stock it appears to have some merit, as union by graft at the crown is readily effected and the resulting plants grow well and are not unduly troubled by suckers. For piece-root or bench-grafting it may have a future, as the large roots unite readily to properly fitted cions and make quite lasting plants. The inclination of the stems and the frequency of sprouts at the crown render it unsuitable for budding, though budded *Setigera* plants are little troubled by root-suckers where fairly established. This species can be easily propagated by seeds or cuttings if wanted in quantity.

Rosa carolina has a root-system well adapted for moist soils. My experience with it is limited to root-grafting, for which it appears quite suitable. The suckering habit would preclude it for budding. *R. californica* is quite similar in its habits and requirements, and has been successfully used for root- and crown-grafting at the United States Plant Introduction Field Station, Chico, Calif. When transferred to the eastern states it appears quite susceptible to nematode or root-gall infection.

The Dog rose, *R. canina*, is used abroad to an enormous extent. Possibly 80 per cent of the cheap rose plants imported from European countries are budded on *R. canina* or "brier" stocks, as they are commercially known, the better class of foreign plants being generally worked on Manetti, which will be considered later. *Canina* undoubtedly makes a good stock for European use, but long experience has shown it to be of little value in sustaining growth during our dry and hot summer weather. Brier-worked roses are notoriously short-lived, and troubled with endless root-suckers during their unsatisfactory existence. It is the stock most commonly used abroad for tree and weeping-standard rose effects, as tall and strong stems are easily obtained; and it doubtless gives fair satisfaction in the comparatively moist and cool climate of northern Europe, but the thin, dry bark and limited season of growth render it practically useless for the purpose in this country. Notwithstanding its abundance and comparative ease of manipulation, I regard *R. canina* as a poor stock for this country.

The Sweetbrier, *R. rubiginosa*, is rarely used as a stock but appears to have some merits. The bark peels readily when in proper condition, and, from its upright growth, plants may be low-worked in the field, either with buds or grafts, with less trouble than most rose species. If grafted at the crown there appears less trouble with suckers than with any stock I have used. The objections to Sweetbrier are its slow increase (seeds requiring two years for germination) and its rather moderate vigor. Some of the Penzance Sweetbrier hybrids, notably Meg Merrilies, may develop into useful stock for hardy roses. I have had much better success in high budding on the strong stems of Meg Merrilies for standard effects than with *R. canina* or any other stock except *R. rugosa*.

Rosa chinensis is apparently rare in nature, but in its hybrid form, var. *Manetti*, found many years ago in northern Italy, we have, without doubt, the most useful stock for general purposes yet brought to notice. Millions of plants are annually budded and grafted on Manetti for commercial rose-forcing and garden-planting. The production of Manetti stocks from cuttings is an industry of considerable importance in several European countries, and should be strongly established in this country. Manetti naturally has a long season of growth, and plants established on it may be kept in continuous bloom under glasshouse conditions for a year or more. In the garden it sustains growth well into early winter and quickly starts in the spring. The root-system is compact, enabling stocks to go into small pots when to be grown in that manner, yet vigorous enough to develop the characteristics of any but the most rampant growing bush and climbing roses. The wood and bark handle well, if in condition, for all the various budding, grafting, and inarching operations, and the unions generally are strong and permanent. Its range of affinity for the many species and varieties of modern roses is greater than any other stock I have tried, but does not include all. It is, however, too bushy in habit for tree or standard effects, and, as a rule, should be worked as near the soil as possible, to reduce the sprouts or suckers that are freely thrown out above the crown, but rarely come from the roots unless the bud or graft is an unusually weak grower. Though possessing limitations, Manetti stocks are a

boon to the propagator when cuttings fail, and there is little time to bother with layers or divisions.

Mme. Plantier is a *R. chinensis* hybrid of another type, and is at times referred by botanists to *R. alba*. It was tried some years ago as a stock for Hybrid Perpetuals and old garden roses of difficult propagation, but has fallen out of use. The main claims made for it are that it is extremely hardy, forms a good union, and is sufficiently meritorious in its own way to be prized, even if the propagations should fail.

The well-known Hybrid Perpetual, Paul Neyron, one of the largest flowered and most desirable roses of its class, should, without doubt, be included in the *R. chinensis* group. A few trials have convinced me that it has good possibilities as a stock for hardy roses. Plants worked on Paul Neyron are noticeably vigorous and free in growth, and in the event of losing bud or cion, the stock most honorably fills the place of any but the rarest of varieties. Mme. Plantier and Paul Neyron are both readily increased by cuttings.

Rosa multiflora, in several varieties, comes next to Manetti in general adaptability, but is most largely used for propagating climbers and dwarf varieties to be used for bedding. Two classes of Multiflora stocks are familiar to commercial propagators—seedling and cutting-grown.

Multiflora seedlings develop strong, deep-growing roots, well supporting the cion, and tend to form quite permanent plants. Cuttings, on the other hand, are more likely to form masses of shallow, fibrous roots that give a quick start to the resulting plant but have little staying power. Roses worked on Multiflora cuttings, usually of the variety Grifferaie, which does not reproduce itself by seeds, appear very susceptible to injury from drought and are much plagued by suckers. Seedling Multifloras of the type, and also of the form known as "midget" rose, when budded or grafted just below the crown, make satisfactory plants, less troubled with suckers. Multiflora seeds, especially of the "midget" type, germinate very readily, sometimes within ten days after sowing, and make workable stocks in a season's growth. Seedlings, however, vary greatly in vigor, and only the stronger ones should be used for propagating. Doubtless Multifloras of the Rambler type could

be used as stocks for strong-growing climbers difficult to root from cuttings or layers, but I have not heard that they are utilized for this purpose.

The use of *R. rugosa* for stocks other than tree and weeping-standard effects should be frowned on. Many of the cheap and worthless rose plants imported from Holland and sold by department and auction stores are worked on Rugosa roots and give endless trouble from their exuberant suckering propensity. They appear to be classed by importers as Brier stock, but are inferior in every way to plants on Dog rose, or Canina, stocks. It is to be hoped the output of dwarf roses on Rugosa will be lessened in the future. For high standards, however, where the hoe or other cultivating tool has full play around the single stem, it is doubtful if Rugosa has a superior. It can be trained to single tall stems, hardy and lasting, and is easily budded or grafted at the proper season. The extensive root-system gives ample support to the strongest stems and broadest heads that can be grown, providing sufficient fertility is maintained. Suckers and root-sprouts may be expected to push forth throughout the growing season but can readily be destroyed, owing to the ample working-space between. In addition to its adaptability as a Tea rose stock, Rugosas of the finer types make effective natural standards when desired. The illustration facing page 24 (Plate III) shows a white Rugosa Hybrid originated and trained as a natural standard, without budding or grafting, by Mr. J. A. Kemp, Little Silver, N. J.

The Tea rose, *R. odorata*, is not often thought of as a stock, though the gigantic climbing forms native to Burma would appear able to support almost any amount of top-growth. A hardy form of *R. odorata*, collected in China by the agricultural explorers of the Department of Agriculture and assigned to the Foreign Seed and Plant Introduction, No. 22449, is proving very useful in this capacity at the Department's plant introduction field stations in California and Maryland. No. 22449 is a fairly vigorous climber in mild climates, bearing a profusion of double blush-white blooms in early spring. The bark is greenish, of good texture, and "slips" readily at almost any time during growth. Buds of desired varieties may be placed in the canes or branches at intervals of a few nodes, and, when fairly "set," the

branches or canes are cut into lengths, each bearing a foreign bud and rooted in sand as ordinary cuttings. The roots of this unusually convenient stock appear lasting and hardy enough to maintain bush and garden rose varieties in vigor for many years. My personal experience is much in its favor.

The only hybrid of *R. Wichuraiana* I have tried as a stock is Silver Moon. When crown-grafted with strong-growing new Chinese rose species it has given excellent satisfaction, and it may have a considerable field of utility. The *Wichuraiana* type does not offer much inducement for trial, as its growths are quite spindling until very thoroughly established.

Rosa laxa is used for general stock purposes to some extent in Russia and adjoining countries. Imported plants on this stock thrive well but show no especial adaptation. In common with the related species, *R. macrophylla* and *R. setipoda*, the growth is strong and upright and the wood quite free from troublesome prickles. There appear to be two forms of *R. laxa*, a white-flowered variety and the typical pink one. The latter appears more vigorous and better adapted for stock purposes. All the species of this group should be well tested in this country. They are handsome enough to grow for garden plants if the cions should chance to fail.

STOCKS FOR TENDER ROSES

There are in addition several stocks not able to endure freezing that may be kept in mind when plants are propagated for growing in greenhouses and frost-free climates. *R. Banksia* is best known for this purpose, being freely used abroad as a particularly effective nurse-plant for the glorious yellow climbing Noisette, Marechal Niel. *R. Banksia*, when undisturbed, reaches great proportions, and the cultivated forms have wood smooth and free from prickles, though the latter are abundant in wild types. *R. Banksia* may well be used for other strong-growing varieties where it is sufficiently hardy. The finest Marechal Niel the writer ever grew was budded on Cherokee, *R. laevigata*, established in the soil of a cool greenhouse. It had a phenomenal wealth of bloom for many successive seasons and appeared entirely at home on this stock.

Rosa bracteata, the Macartney rose, is much hardier than *R.*

lavigata, and in view of its wide dispersion in several of the Gulf Coast states may eventually be used as a stock. Like the Cherokee rose it is armed with vicious hooked prickles.

Rosa Leschenaultii, one of the tenderest but most luxuriant species of the Musk rose group, is proving a useful stock in Australia and New Zealand, and its use may well extend to California and the Gulf Coast. As a greenhouse stock I have found it very adaptable, but it is useless for outdoor plants in this latitude, even though the roots have survived our severest winters.

Something might be said of *R. Soulieana* and other hardy species of the *R. moschata* group for stock purposes, but experience has been too limited for definite conclusions. Other species are likely and ought to be tried from time to time, and much is to be learned as to the special adaptabilities of those now in common use.

It is more than probable that the rose stocks of the future will be hybrids especially developed for the purpose. Manetti from cuttings, Multiflora from seeds, and Rugosa from seeds or root-sprouts tolerably fill the present requirement of commercial and amateur rose propagation—the latter for standard effects and the others for the general run of plants for glasshouse cultivation and garden decoration; but a greater variety of stocks having special affinity for composite hybrids will be needed in the future to meet the complications likely to be brought about by modern rose-breeders. Practical experience with the less-used stocks is needed, and its publication will be welcomed.

*Thou fairest Rose of all, ah, say
For whom dost thou thy hundred leaves display?
To what blest mortal wilt thou own
Such charms have sprung for him alone?*

—HAFIZ, Persian poet of the fourteenth century.

More About Rose Diseases

By L. M. MASSEY

Plant Pathologist, Ithaca, N. Y.

EDITOR'S NOTE.—The Annual has presented, from time to time, all ascertainable data concerning the enemies of the rose. In the 1916 issue, pages 62 to 67 were occupied by a succinct statement as to rose diseases and by the most complete presentation on "Rose Insects and Their Control" yet made. The 1917 Annual included an actually entertaining statement by an able entomologist, as well as the article on "Rose Diseases" written by Dr. L. M. Massey, a plant pathologist who had undertaken the first definite investigation of the subject at the instance and under the combined support of the American Rose Society and Cornell University.

Dr. Massey's second report follows. It will be found particularly valuable in its definite suggestions upon the control of black-spot and powdery mildew, using a new and much more convenient dusting method. It is hoped that shortly the American Rose Society may again be able to support the continuance of this work.

THE project for the investigation of rose diseases which was begun August 1, 1916, is now in its second year.* During the first year, stress was laid upon making a survey of diseases by visiting as many rose establishments as possible. The gardens and greenhouses of about fifty rose-growers were visited, and the various diseases, together with their range and the extent of injury, noted. Probably an equal number of growers materially aided the work by sending specimens of diseased plants. Suitable plants for experimental purposes were obtained and plans made for conducting well-checked experiments for the control of those diseases which, as indicated by the survey, were causing greatest loss.

During the second year an additional number of rose establishments have been visited. Reports on diseases and requests for information have been received from an ever-increasing number of growers. Plans made during the first year have been developed and elaborated. Valuable data relative to the control of the new disease, to which the name crown-canker has been given, have been accumulated. Experiments for the control of black-spot and mildew have led to the establishment of improved methods. About four hundred rose plants are now grow-

*The Executive Committee of the American Rose Society, at a meeting held in Cleveland, Ohio, on November 8, voted to discontinue the work because of lack of financial support.—**EDITOR.**

ing under experimentation in the greenhouses at Cornell University. Not only are experiments under way for the improvement of control measures of the better-known diseases, but new diseases are being investigated. Life-history studies of several fungi are in progress. The results to date are all that could be expected, and are very encouraging.

It was with regret that the writer learned that the American Rose Society found itself unable, for the present, to continue the work, after so good a foundation had been laid and the investigator placed in a position to make rapid progress toward the solution of rose-disease problems. Money and valuable time, it might seem, has been expended uselessly.

CROWN-CANKER*

An important disease of the rose, to which the name crown-canker has been given, was first observed by the writer in September, 1916, affecting American Beauty plants. The grower stated that he had had the disease under observation during the past four or five years, a few plants being affected each year and the disease being confined to a single house.

Subsequently, plants affected with the crown-canker disease have been received from eight growers, the states of Missouri, Pennsylvania, Indiana, Michigan, Massachusetts, and New York being represented. A Missouri grower observed the disease in 1916 on the varieties Hoosier Beauty and Ophelia growing on their own roots. An eastern grower was of the opinion, in 1916, that all of his plants were affected, and it is the opinion of the writer, after having examined his plants, that at least a very large percentage of them were diseased. During the four years prior to 1916 increasingly poor results were obtained by this grower, who, when interviewed in November, 1916, was planning to destroy his plants, sterilize houses and soil, and begin anew with healthy stock.

Rose plants of the varieties Hoosier Beauty, Ophelia, Hadley, Mrs. Charles Russell, Sunburst, American Beauty, and many seedlings have been observed affected with the disease. Both grafted plants and those growing on their own roots are affected. It is questionable whether or not any variety is immune.

*Massey, L. M. The crown-canker disease of rose. *Phytopathology* 7: 408-417. 1917,

Indications are that this may prove to be the most important disease of roses grown under glass. To date no record has been made of this disease on outdoor plants.

Symptoms.—Diseased plants are affected at the crown, usually just at the surface of the soil, the lesion (definitely diseased region) in advanced cases frequently extending several inches above the soil. The writer has not determined to what extent the root-systems are commonly affected. However, lesions have been observed near the tips of roots of four-year-old plants, and, of several plants examined, unquestionably the entire root-system of each plant was affected. The union of cion and stock, and the area immediately above, is the most common point of attack.

The first indication of the disease is a slight discoloration of the bark. As the disease advances, the color deepens to black and the tissue appears water-soaked (Plate IV, A, C).^{*} At first the lesions are irregular in outline, with a somewhat sharply defined margin. Later, as the affected area increases in size, the blackened color of the diseased part is blended more with the healthy tissue. The lesions frequently encircle the stem. Soon cracks appear in the bark, extending into the wood (Plate IV, B).^{*} Later, a swelling of the stem, as from girdling, occurs at and above the affected area, the cracks becoming deeper and more evident. In old lesions, the black, water-soaked appearance is lost. Sometimes the stem is encircled by a shrunken area, which contrasts sharply with the swollen area immediately above.

One very noticeable characteristic of this disease is the punky consistency of the diseased tissue, especially that affected under ground. When scraped, the bark, sapwood, and frequently the roots appear punky and lifeless, not uncommonly in areas where no definite lesion is evident.

Suckers developing from the roots of diseased plants are usually spindling and yellow. They are commonly affected at the point of attachment to the main stem, the tissue being blackened and of a punky texture.

Affected plants do not die quickly, but linger on and yield increasingly poor and few blossoms. It is practically impossible to force such plants to increase activity by heavy applications of

^{*}This Plate will be found facing page 41.

fertilizers. The foliage of plants affected with this disease is frequently of a lighter green color than that of healthy plants. Probably the number of plants actually killed within the duration of time they are usually kept by growers is very small, but the normal activities of the plant are so materially interfered with that diseased plants can be grown only at a financial loss.

Cause.—The crown-canker disease of the rose is caused by the fungus *Cylindrocladium scoparium*. This organism was first reported from Ohio, where it was found growing saprophytically on a pod of the honey locust. Later, it was found living on dead pawpaw leaves. The writer described the fungus as a parasite on the rose in December, 1917*.

Although spores of the fungus have never been found by the writer on plants growing in the benches, they frequently develop in from two to five days on diseased rose plants when kept in a moist chamber. Consequently they are probably formed in the greenhouse on plants growing under moist conditions. Spores placed in water germinated after three to twelve hours. They are thin-walled and probably not long-lived. Just what part they play in disseminating the fungus is unknown. Infection of plants is readily obtained by spraying them with water containing viable spores in suspension.

Moisture relation.—Moisture apparently plays an important role in the severity of the disease. Lesions on stems well above the surface of the soil, resulting from artificial inoculations, appear to dry and make no further progress unless kept moist by being surrounded with wet cotton or some such substance. Inoculations made at a point several inches above the soil frequently result as above. One grower, who has had considerable experience with crown-canker, is of the opinion that the disease is lessened by placing plants with the graft-union above the soil, thereby preventing infection at this point. The same grower stated that the seriousness of the disease is reduced by pulling the soil away from the crown of the plant, thus creating a more dry condition at this point. These are undesirable methods, for grafted plants usually develop roots at the graft-union when planted sufficiently deep. Probably the fungus is low in parasitism and moisture conditions relate to development.

*Massey, L. M. The crown-canker disease of rose. *Phytopathology* 7:408-417. 1917.

Control.—Although experiments are under way in the hope of developing some method of controlling the crown-canker of the rose, no definite results are yet at hand. From the nature of the fungus and judging from results to date, it would seem that control will resolve itself into some method of soil treatment, probably soil sterilization. The fungus grows well on both acid and alkaline media, so that the possibility of control by developing an acid or alkaline condition of the soil does not appear to be promising. Soil sterilization and the exercise of care in using only healthy stock and cions for grafting may be the only feasible method of controlling the disease. Investigations of control measures are being conducted in coöperation with Professors A. V. Osmun and P. J. Anderson, of the Massachusetts Agricultural Experiment Station. Progress to date has been encouraging, and it is hoped that something definite can be offered growers in the near future.

EXPERIMENTS FOR THE CONTROL OF BLACK-SPOT AND POWDERY MILDEW OF ROSES

Probably all growers of roses are aware of the need of more efficient methods for the control of black-spot and powdery mildew. Literature contains numerous suggested methods, many of which relate to the use of spray mixtures which are inefficient and open to objection. Ordinarily, the conditions and needs either of the commercial rose-grower or of the fancier have not been considered. The discoloration of a spray on plants and buildings may be more objectionable than the disease itself; the reasonable expense of protecting ornamentals from disease ordinarily is not an item for consideration. The following experiments have been performed to determine what fungicides are effective in the control of the two diseases.

Black-spot.—Protection by spraying is the usual recommendation for the control of the disease of roses caused by *Diplocarpon rosæ* Wolf. Of the numerous fungicides recommended in literature, probably bordeaux mixture and ammoniacal copper carbonate are the two most often mentioned. Statements to the effect that the latter fungicide is as efficacious as the former are common in literature. Results of the following experiments, conducted in 1917, indicate that ammoniacal copper car-

bonate is not so efficient as bordeaux mixture for the control of the disease. A mixture of ninety parts finely ground sulphur and ten parts powdered arsenate of lead, dusted upon the plants, proved to be as efficient as bordeaux mixture and its use rendered the plants far less unsightly than the latter fungicide. Lime-sulphur solution, one part of the commercial concentrated solution to fifty parts water, was found to be more efficient than ammoniacal copper carbonate, and probably as much so as bordeaux mixture and the sulphur-lead-dust. However, lime-sulphur discolors the foliage almost as much as bordeaux mixture.

Experiments in the nursery.—In the experiments performed in the nursery, there were nine rows of rose plants, each of a single variety, the following eight varieties being involved: J. B. Clark, Gruss an Teplitz (two rows), Prince Camille de Rohan, Clio, Mrs. John Laing, John Hopper, Mme. Gabriel Luizet, and Margaret Dickson. A part of each row of plants was included in each of the different plats. There were 450 plants in each of the five plats which were treated as follows: Plat 1, dusted with the sulphur-arsenate mixture; Plat 2, sprayed with bordeaux mixture, 5-5-50; Plat 3, sprayed with lime-sulphur solution, 1-50; Plat 4, sprayed with Hammond's copper solution,* 1-100; Plat 5, untreated.

The first applications of dust and spray were made on May 31. All of the buds had opened, and most of the leaves were well developed on this date. Subsequent applications were made on June 12, June 23, July 4, July 24, August 2, and August 25. Final data were recorded on September 13, the middle row (variety Clio) being selected, and the number of infected leaflets counted on twenty plants. The part of the row included in each plat consisted of approximately sixty plants, and the data were obtained from every other plant in the central area. Defoliation was not taken into consideration. From observations it was determined that the amount of defoliation varied directly with the percentage of leaflet infection in the various plats,

The percentage of diseased leaflets for each plat was as

*Hammond's copper solution is a cupra-ammonium wash containing, according to the manufacturer, 3.05 per cent metallic copper.

follows: Sulphur-arsenate, 7.66; bordeaux mixture 5-5-50, 8.51; lime-sulphur solution 1-50, 24.43; Hammond's copper solution 1-100, 37.77; untreated, 80.

A point to be noted in the above experiment is the fact that the plat treated with lime-sulphur solution was situated on low ground where there was poor drainage. Owing to the heavy precipitation throughout the season, these plants were subjected to more moist conditions than those in the other plats, which had better drainage. Consequently it is probable that lime-sulphur is more efficient in the control of rose black-spot than the above results would indicate. This probability is further emphasized by the following experiments.

EXPERIMENTS IN THE TEST-GARDEN OF THE AMERICAN
ROSE SOCIETY

A somewhat similar experiment for the control of *Diplo-carpou roseæ* was conducted in the test-garden of the American Rose Society at Ithaca, N. Y. Here the plants were arranged in beds, there being, on an average, four varieties of six plants each in a bed. There were six plats, each of which included twelve beds, treated as follows: Plat 1, dusted with sulphur-arsenate; Plat 2, sprayed with ammoniacal copper carbonate;* Plat 3, sprayed with lime-sulphur 1-50; Plat 4, sprayed with fungi-bordo 5-5-50;† Plat 5, sprayed with Hammond's copper solution, 1-100; Plat 6, untreated.

During the summer, thirteen treatments were made on the following dates: May 26, June 4, June 11, June 18, June 24, July 3, July 13, July 20, July 31, August 9, August 21, August 29, and September 9.

Final observations were made on September 24. Due to the fact that the plats did not contain the same varieties, it was impossible to compare the treatments by determining the percentage of diseased leaflets. Gross observations were made by the writer, who also obtained the opinion of the gardener and others not directly interested in the work. The plants of the

*The ammoniacal-copper-carbonate solution was composed of five ounces of copper carbonate, three pints of ammonium hydroxide (sp. gr. 0.90), and fifty gallons of water.

†Fungi-bordo is a dry, finely ground mixture of anhydrous copper sulphate and hydrated lime. It was used at the rate of ten pounds to fifty gallons of water, which is approximately equivalent to a 5-5-50 bordeaux mixture.

dusted plat and those sprayed with fungi-bordo and lime-sulphur solution stood out in sharp contrast to the other plants in the garden, because of their healthy leaves and heavy foliation. It was impossible to determine from gross observations which of these treatments was most efficient. The plats treated with ammoniacal copper carbonate and with Hammond's copper solution contained but slightly less affected plants than the check, and marked defoliation occurred in all three plats.

From these experiments, it would seem that lime-sulphur solution 1-50, bordeaux mixture 5-5-50, and the dust mixture consisting of ninety parts finely ground sulphur and ten parts arsenate of lead (above referred to as "sulphur-arsenate") are three efficient fungicides for the control of black-spot of the rose, while Hammond's copper solution and ammoniacal-copper-carbonate solution are much less efficient. Because of its ease of application and that its use discolors the foliage less than the other two, the sulphur-arsenate dust* is to be given the preference.



FIG. 1. Corona hand duster. An efficient machine for the application of the sulphur-lead-dust mixture to rose plants for the control of black-spot and mildew.

Powdery mildew.†—The efficiency of sulphur fungicides for the control of rose mildew has long been recognized. Lime-sulphur and other liquid sprays are more or less effective, but owing to the time and labor involved in applying spray solutions and to the unsightliness brought about by their use, an efficient dust mixture is preferable. Stewart,‡ in 1916, reports good control of rose mildew by the use of the dust mixture above mentioned as sulphur-arsenate. A similar mixture was used by the writer in 1917, and it was found to be decidedly more efficient than lime-sulphur solution 1-50 or bordeaux mixture 5-5-50.

*The sulphur-arsenate dust was obtained from the Union Sulphur Company and was so finely ground that at least 98 per cent would pass through a 200-mesh sieve. It was applied with a hand duster. An efficient duster is shown in Fig. 1. This machine may be obtained from the Corona Chemical Company of Milwaukee, Wis., and costs \$2.50.

†The mildew of roses is caused by the fungus *Sphaerotheca pannosa* (Wall.) Lév. var *rosea* Wor.

‡Stewart, V. B. Experiment for the control of rose mildew. In dusting nursery stock for the control of leaf diseases. New York (Cornell) Agricultural Experiment Station Circular 32:9. 1916.

A row of Crimson Rambler bushes planted thickly and forming an arbor about 500 feet long was divided into four sections of equal length and treated as follows: Section 1, sprayed with bordeaux mixture, 5-5-50; Section 2, sprayed with lime-sulphur solution, 1-50; Section 3, dusted with sulphur-arsenate; Section 4, untreated.

The first application of dust and spray was made on August 2. Mildew appeared between this date and August 16, when the second application was made. Another application was made on August 25. The experiment was terminated on September 13. On this date the dusted bushes were practically free from mildew, only a few infected shoots being apparent. The bushes treated with bordeaux mixture and lime-sulphur were severely infected and were but slightly less free from the disease than the untreated bushes. Besides its superiority in fungicidal value, the dust mixture rendered the plants far less unsightly than the bordeaux mixture or the lime-sulphur solution. The latter fungicide appeared to be slightly more efficient than bordeaux mixture.

CONCLUSIONS

The careful experiments above detailed seem to warrant the opinion that the sulphur-arsenate dust mixture, properly applied, affords the most efficient control for the two diseases most disturbing on garden roses. The control, indeed, amounts almost to a specific, and it is hoped that in 1918 many amateurs will avail themselves of this simple, clean, and seemingly efficient means of keeping their roses practically free from black-spot and powdery mildew.

*It will never rain roses: when we want
To have more roses we must plant more trees.*

—GEORGE ELIOT.

Succeeding with Roses

By ROBERT E. HUGHES, Buffalo, N. Y.

EDITOR'S NOTE.—It is the function of the American Rose Annual to show the adaptability of the rose everywhere. Mr. Hughes gives valuable suggestions for the latitude of Buffalo. To his excellent suggestion as to a testing jury, reply is made that when the various test-gardens of the Society get into working relation, and the committees relating to them operate upon uniform methods, just what he proposes will be accomplished.

THERE is no situation or location in this broad land of ours where roses cannot be successfully grown if the right varieties are determined. If more care and discretion were used in selection, our rose-gardens would be more beautiful than they are today.

The fact of the matter is, one cannot generalize. Each locality has its peculiarities and adaptations. Certain varieties that grow vigorously in some sections are failures in others. While some varieties of roses have wonderful adaptations to a large and varied range of climate, others are successful only when grown under most congenial and favorable conditions.

From my own observations, I offer my experience by separating the varieties into two classes, namely, those that do well, often under adverse conditions; and those that do not in the Buffalo environment.

My information in this respect is not confined to the some fifteen hundred plants in over one hundred varieties (mostly Hybrid Teas) grown in my garden, but includes observations made in several gardens visited, having a diversity of soil and locations.

My own roses are all field-grown plants, budded on the seedling Brier. This selection is based on the requirements of autumn blooms produced from cut-backs as well as blooms from maiden plants, particular stress being laid on the varieties that are vigorous growers and not subject to the die-back habit characteristic of some roses.

No attempt will be made to classify them as to color, as this is obtainable from most catalogues, but simply to note their merits as decoration or garden roses; many of them, however, produce blooms of exhibition size and type.





PLATE VI. Hybrid Tea Rose, **ROSALIND** (a sport from *Ophelia*)
(See page 97)

The following list of roses of vigorous growth should prove a source of joy to the beginner:

Betty, Dorothy Page Roberts, Duchess of Wellington, Gruss an Teplitz, Harry Kirk, Jonkheer J. L. Mock, Lady Pirrie, Lady Ursula, La Tosca, Mary Countess of Ilchester, Miss Cynthia Forde, Mme. Caroline Testout, Mme. Charles Lutaud, Mrs. Arthur E. Coxhead, Mrs. A. R. Waddell, Pharisaer, Prince de Bulgarie, Radiance, Willowmere.

The following varieties, while not quite so vigorous, are good, having excellent habits of growth and producing good autumn blooms.

Admiral Ward, Antoine Rivoire, Chrissie MacKellar, Edith Part, General MacArthur, George C. Waud, Gorgeous, Joseph Hill, Lady Alice Stanley, Lady Ashtown, Laurent Carle, Lieut. Chaure, Louise Catherine Breslau, Lyon, Maria Adelaide, Marquise de Sinety, Mme. Segond Weber, Mme. Theodore Delacourt, Mrs. Aaron Ward, Mrs. Alfred Tate, Mrs. Ambrose Riccardo, Mrs. Frederick W. Vanderbilt, Mrs. Herbert Stevens, Ophelia, Red-Letter Day, White Killarney.

Following are named varieties that I have grown more than two seasons and have now discarded as being either head-hangers, bad openers, poor growers, or tender, shy bloomers. I include those unduly subject to mildew.

A. R. Goodwin, Bessie Brown, British Queen, Edward Mawley, Lady Roberts, Leslie Holland, Maman Cochet, White Maman Cochet, Miss Alice de Rothschild, Mme. Jules Grolez, Mrs. Andrew Carnegie, Mrs. Charles Russell, Mrs. Cornwallis West, My Maryland, Pink Killarney, Rayon d'Or, Sunburst.

In conclusion, I would like to suggest that our Secretary appoint a jury or committee of at least thirty persons (fifteen amateur and fifteen professional growers), each growing at least one hundred varieties, from various sections of the country, and each member to vote on the relative merits of varieties for garden purposes. I would advise limiting the selection to fifty sorts to be voted on annually, giving pride of place to the variety receiving the largest vote, etc. This audit would be published each year in the Rose Annual for the information of its members.



The Rose in Florida

By MRS. MARIAN A. McADOW, Punta Gorda, Fla.

EDITOR'S NOTE.—What Mrs. McAdow writes will add materially to the universality of the rose in the United States. Previous issues of the Annual have contained articles relating to Florida, to which also the reader is referred.

THE visitor and the new resident in Florida are always wondering why so few roses are seen in the state. From their point of view anything in the form of vegetable life ought to grow in a climate that so closely conforms to the air in a greenhouse, but, if they'll stop to think, hothouse roses are always given a great deal more attention and care than those grown in the open ground in the more northern states. Starting with this premise, if one is willing to give the rose special attention, just as fine blooms and just as good bushes can be grown here as in the most favored parts of the country.

For the most part, the soils of Florida are extremely light and quickly part with their moisture. It is generally conceded that the rose has a preference for stiff soils that retain moisture. Such being the case, one must make a special endeavor to provide the moist soil conditions that the rose loves. In the stiff, clay soils in the northern part of the state, no one seems to worry over the growing of this favorite flower, and the soil preparation is not unlike that used by a rose-grower in Pennsylvania or Ohio; but, farther south, where the sandy loam forms the soil, with often a marl subsoil, one goes about the preparation for a rose-garden in a way that is peculiar to this part of the country.

The hole that is dug for the new plant should be about eighteen inches deep and three or four feet square. If one can get old sods to turn upside down in the bottom of this hole, they may be used. A generous sprinkling of ashes and bone-meal on this sod promises delectable rations for the roots. On top of the sods, good earth should be thrown in, a mixture of dried and pulverized muck soil mixed with the native marl—clay, if it can be obtained—and well-rotted stable-manure. One or two pounds of rather coarse bone-meal mixed thoroughly through this combination make an ideal supply of plant-food for a long time.

If all these various ingredients cannot be obtained, one need

not give up the pleasure of a rose-garden, for I have seen an abundance of fine blooms produced with nothing but the native sandy soil as a basis. However, when this has been the case, I have always found a compact, heavy mulch that was contributing a continuous supply of moisture and plant-food; and some stimulant was used in the form of commercial fertilizer, bone-meal, stable-manure, or chicken-droppings. A mulch of grass-clippings, stable-sweepings, or, in case these cannot be obtained, the leaves of some of our native trees, with small leaves, will serve very well. The idea is to keep the soil about the roots from drying out.

The climate of Florida is not nearly so hot as one would expect it to be so far south, because the sun's heat is tempered by quite constant breezes during the summer months; and there being scarcely any twilight, we have fewer hours of sunshine, and, consequently, a day in the tropics or in Florida stores up anywhere from two to four hours less of the sun's rays than do the more temperate parts of the earth's surface. However, while the sun does shine, its reflected beams right at the surface of the ground are extraordinarily hot, and draw heavily on the moisture below. For this reason the mulch is much more necessary to the welfare of the rose in Florida than in New York state. This mulch should extend out from the trunk of the bush at least five feet, which insures to the little feeding-roots the damp conditions they like. A plant can't chew up its food and reduce it to a liquid as do we and the animals, yet it is essential that moisture in sufficient amount be brought in contact with the plant-food in the soil so that it may be easily taken up by the tiny feeding-cells of the rootlets.

Neither does the rose care for too much water—too much is as bad as not enough; the rose doesn't like sloppy food any more than you do!

To know just how to grow any plant successfully one has to develop an instinct that is so akin to the plant soul that it seems as if you have a common language and communicate with each other thereby. Right in the middle of the night you'll wake up and know that Mme. Lambard and Duchesse de Brabant are thirsty, or that something is the matter with Captain Christy. Early the next day you go out and find your premonition true,

and that the poor Captain is as miserable as a soldier in the trenches in France, but can't take his shirt off to relieve himself. You then and there get busy, and there's a mighty slaughter of red spiders or aphides, after which your helpless plant-child soon shows its appreciation.

Soil preparation alone will not grow roses in Florida. Roses don't do well here on their own roots, although one can have an abundance of bloom from such plants for two or three years. Then the plant begins to show up masses of dead wood, and no amount of coddling will prolong the life of that bush. A post mortem reveals the fact that the roots have died back and disappeared until nothing is left but two or three soggy stumps. So, if one wants strong, thrifty plants it is necessary to buy those budded on Manetti, Multiflora, or some other stock, and it pays to buy plants at least two years old.

Manetti stock seems to be the favorite among the nursery-men in the state. When budded plants two or three years old are set out, it is necessary to plant the bush deep enough in the soil to cover the graft or bud. This will bring it two or three inches lower down than it grew in the field where it was budded.

I know some rose bushes in south Florida which their owner says are budded on Multiflora stock, that have a main trunk ten to twelve inches in diameter. They spread out over fifteen feet of ground and are kept pruned down so that the blooms may be cut without getting on a ladder. No special preparation had been made for these bushes, the owner claiming that the parent stock was responsible for their mammoth proportions, magnificent health, and productiveness. There was no mulch about them, and the only fertilizer they received was what happened to be handy—commercial fertilizer, stable-manure or chicken-droppings. A little more experimenting with different stocks on our light soils will some day reveal just the right combination, and then rose-lovers will not find themselves disappointed in Florida's possibilities for growing the most wonderful roses in the world.



Roses in the Semi-Arid Southwest

By W. C. BLANKS, San Angelo, Texas

EDITOR'S NOTE.—In this article an enthusiastic member of the American Rose Society tells how climatic difficulties may be surmounted. What he writes of rose-growing in a city park ought to be suggestive for many regions.

MANY of the injunctions of rosarians as to varieties, planting, culture, and pruning of roses are not at all applicable to that large semi-arid section of the United States which may be roughly described as comprising the larger portion of western Texas, all of New Mexico and Arizona, and a part of western Oklahoma. The principal characteristics of this country are scant rainfall, with great variations in precipitation from year to year, a limestone or "adobe" soil, frequently impregnated with more or less alkali or "gyp," a gravel sub-base, high winds, little or no dew, few cloudy days, and high temperatures in the spring and summer. The winters might be termed fitful, weather below freezing often following summerlike temperatures with astonishing rapidity. This article will deal with the subject of selections of varieties and successful production of good roses under these apparently adverse conditions.

The first and most important consideration I have found to be the location of the rose-garden and preparation of the ground for the reception of the plants. Preferably, a rose-garden in this section should always be provided with a windbreak of hardy evergreens. The arborvitæ and scrub cedars are fine and hardy windbreaks, and, in the central and more southern sections of the country, the Japanese ligustrum, grown in bush form, is ideal. If these windbreaks are not available, plantings should be made with such reference to buildings and fences that these will afford partial protection.

Assuming that we have arranged for the protection of our roses against the strong winds, the next problem is the proper preparation of the soil and beds. I will not speak here of arrangement, though this is an important and interesting detail, and much depends on it for effective garden display. Roses do not like alkali, and if there are more than slight evidences of it, it is best to remove the soil entirely from the beds for at least

twenty inches in depth and substitute fresh soil. Leaf-mold and "made soil" found in creek and river valleys, a little wood-ashes, rotted sawdust and bark from wood-piles and wood-yards, and well-rotted turfs of the Bermuda or mesquite grass, make the best combinations of substituted soil available to us here, and in such beds very fine roses may be grown. Where the native soil is comparatively free from alkali, it is good practice to remove the topsoil for about eight or ten inches, placing it to one side for use in refilling the beds, and then remove the lower eight to ten inches entirely, substituting for it and mixing with the topsoil some such combination as that above suggested. If the native soil is good, no fertilizer other than leaf-mold, rotted turfs of grass, rotted sawdust, or similar materials is needed or desirable. The soil and beds should be prepared in this section in the fall months, and in January the roses should be planted. Two-year-old, dormant, field-grown roses are best. Some do better on their own roots; others are better budded.

Irrigation must be practised in this country in order to raise roses, as the normal rainfall is insufficient to maintain them, and the way to irrigate roses is to soak the ground in the rose-beds not oftener than once in three weeks. There is no drainage trouble here, as the sub-base of all our soil is of such porous nature that all excess moisture is soon eliminated, and we are never troubled with mildew. Sprinklers which spray the water over foliage and bud should be avoided, except that occasionally a strong spray of water on the leaves to wash off the dust is advisable. The plants should be thoroughly cultivated to prevent rapid evaporation.

The use of bordeaux mixture once or twice a year is advisable; otherwise I have not found it necessary to "doctor" the plants. In sections where the soil shows considerable limestone content, the use of agricultural or hydrated lime, about a teacupful around each plant, thoroughly mixed with the soil, is very beneficial about once each year.

If varieties adapted to this country are used and the suggestions above are followed, the grower ought to have a gorgeous spring display of roses, beginning, as latitude and elevation vary, from about April 20 to May 10, particularly the second and subsequent years after planting. Some varieties will bloom

intermittently during the summer, and then about October 1 will come the fall roses, the fairest queens of them all.

In one of our city parks, experiments with roses have been conducted during the past three years, until the experimental beds now have about one thousand plants in something like fifty varieties of well-known and newer roses. At my own place, I have always something like thirty varieties of my favorite roses and am usually trying out possibly one hundred other named kinds. Our intense heat, continuous sunshine, and lack of relative humidity make some very fine roses useless.

Based upon my experience, after the trial of several hundred varieties, I would recommend for this section the following roses: (Those marked thus [*] require partial shade and protection from wind.)

Red.—Gruss an Teplitz, Ecarlate, Edward Mawley, George Dickson.

White.—Climbing Frau Karl Druschki, both climbing and bush forms of Kaiserin Augusta Victoria and Gloire Lyonnaise.

Yellow.—Marechal Niel,* Sunburst,* Lady Hillingdon,* Mme. Charles Lutaud.

Pink.—Madame Wagram,* La Detroit, Antoine Rivoire, Lady Ashtown,* Sweet Marie, Climbing Killarney.

The veriest tyro can succeed with the roses I have mentioned above, and some of them are the cream of all the roses grown anywhere, yet I have a few favorites in addition which I could not dispense with. Chateau de Clos Vougeot has a depth of velvety crimson unapproached by any other rose and, though a shy bloomer, is well worth growing. Mme. Jules Gravereaux, protected as indicated for Mme. Wagram, is a great semi-climbing rose, with very large blooms and exquisite buds. Such roses as Willowmere, Lyon, and Rayon d'Or of the Pernetiana type do fairly well as maiden roses, but our sudden changes in winter kill them back considerably. Soleil d'Or, Juliet, and similar roses of the Pernetiana class are worthless here.

As a rule, in this climate, the climbing type of roses is preferable to the bush forms, and particularly does this apply to Killarney, Kaiserin Augusta Victoria, and La France, the bush form of the latter being practically worthless in this section.

The orthodox rule with respect to pruning, if followed here, would prove disastrous. Roses should be pruned in January,

but with moderation. A good rule to follow is merely to remove the dead wood, cut out weak or ill-placed shoots, and slightly shorten the previous year's growth in bush roses. Removal of dead wood and ill-placed shoots in climbing roses and Hybrid Perpetuals is about all that is required or advisable.

I cannot close this article without mentioning two other roses. One is the Japanese white *Microphylla*, frequently catalogued by eastern florists as *Keystone*. This rose is practically an evergreen, and I have one now climbing on and over a portico, which is fully sixty feet from tip to tip. It is never without bloom from spring till frost, seems to revel in neglect, and its small semi-double cream-white blooms are quite attractive. The other rose is the old *Reine Olga de Wurtemberg*, a climbing red rose. Its spring display is not comparable with some other red roses in quality of bloom, but in the fall it is at its best.

Rose in Topiary Art

By JESSE A. CURREY, Portland, Ore.

EDITOR'S NOTE.—Mr. Currey makes here a suggestion with limitations, for he evidently does not care for the topiary training which develops graceful plant material into strained and unnatural dogs, urns, swans, and the like. The climbing roses make very beautiful—and quite natural—arches, and a garden gate covered with an *Excelsa* or a *White Dorothy* is delightful.

TOPIARY art in roses has, as yet, found little welcome among American growers, but with the constantly increasing number of roses of the *Wichuraiana* type, there is a strong probability that in the next few years many formal gardens will be ornamented with roses woven into various designs. Whether this work will assume the same proportions, attract the same attention, and become as popular as it was growing in England prior to the war, remains to be seen; but the fact that each year one sees weeping standards in gardens in increasing numbers, shows that topiary training, to a certain extent, does appeal to a number of persons.

Weeping standards of *Dorothy Perkins*, *Excelsa*, and other *Wichuraianas* make very attractive garden ornaments, whether grown singly or in the center of a bed of dwarf roses. In a Portland garden I know of one *Dorothy Perkins* budded on

Canina which is nine feet high, and when in bloom it is a most wonderful sight, the head having been trained into the shape of a ball about four feet in diameter. After the blooming season, in July, this bush is pruned, and the new growth arranged in the ball, so even after the blooming season is passed, this plant resembles a large bay tree with bright brilliant green foliage.

What has been accomplished with a standard shows the possibilities of *Wichuraianas* in topiary art. In England, prior to the war, and possibly to the present day, some very large nurseries devoted much care and attention to growing in pots this type of rose, worked into various forms; while in many gardens great care, time and attention had been exercised in weaving the supple plant stems of *Wichuraianas* into various designs. There is no reason why these roses could not be used to a certain extent in topiary in every rose-garden; but when the attempt is made to devise yachts, bottles, stars, aeroplanes and other objects which have no relation whatever to a garden, any result grotesquely abuses the possibilities of the rose. If the long, easily trained stems of the *Wichuraianas* are woven into garden gates, arches, or as a column or pillar so as to fit in some part of the garden, then it has been used to its true value; but to train a rose to grow into the shape of a Dutch windmill or a balloon only exhibits the fact that the owner is endeavoring to produce something to exhibit his own poor taste.

Worked into garden gates or arches, or possibly even into the form of a basket, the *Wichuraianas* present wonderful possibilities; for, blooming, as they will on well-pruned and well-cared-for vines, the entire length of their stems at the height of the season, they show most strikingly.

Confine your efforts in topiary art with *Wichuraianas* to those things pertaining to the garden, and if you do this you will find real pleasure and joy in exercising your skill in this direction. Dorothy Perkins and Excelsa are probably the two best roses for use in this work, although Tausendschön, with its closely grown pink blooms, will make wonderfully fine garden gates. Crimson Rambler and Mrs. F. W. Flight are also good, but, for that matter, almost any rose of the *Wichuraiana* and *Multiflora* types can be used to advantage.

Multiflora Ramblers

By EDWARD K. BUTLER, Jamaica Plain, Mass.

EDITOR'S NOTE.—America seems to take kindly to the hardy climbing roses, even though they are not "everbloomers." Mr. Butler tells of one important class of these roses, and the lovely picture he has supplied (see Plate VII, facing page 88) shows how they succeed under his careful culture.

THE year 1893 was notable in the rose-world for the introduction by Charles Turner of the Royal Nurseries, Slough, England, of the Crimson Rambler, the first of the modern race of the Multiflora hybrids. According to a statement in the *Gardener's Chronicle* (Series 3, Vol. XVI, p. 249), a plant of this rose was sent from Japan to Mr. Jenner, a well-known horticulturist, by Mr. R. Smith, Professor of Engineering at Tokio. Mr. Jenner named it the Engineer, and subsequently gave the rose to J. Gilbert, a nurseryman of Lincoln, who exhibited some cut blooms in London in July, 1890, and received an Award of Merit from the Royal Horticultural Society. Soon after this Gilbert sold his stock to Mr. Turner, who renamed it Crimson Rambler and put it into commerce in 1893.

Perhaps there never was a garden rose that had such a sudden and widespread popularity, both in England and America. As was to be expected, its popularity gave a great stimulus to the production of roses of this type, and new varieties appeared in rapid succession. Some of these earlier sorts, including the Crimson Rambler itself, showed a tendency to shed their leaves rather easily and to be somewhat subject to fungous diseases, so that experienced rose-growers came to regard the class as a whole with less enthusiasm than at first. But with the introduction, one after another, of later varieties that have shown marked improvement in these respects, the value of these ramblers seems now firmly established.

With the possible exception of the Blush Rambler, whose remarkable vigor of growth seems better adapted to tall arches and pergolas, the most effective way to grow roses of this class is as free bushes. Walls, arches, and pergolas may be left to the Wichuraianas, for which they are admirably suited, but it is the great merit of the Multiflora ramblers that their stiffer habit of growth is well adapted to this form, and with some

support, by judicious staking, they are capable of making very large and symmetrical bushes. So grown, with space to develop freely, they possess a natural beauty of form and foliage that gives a really wonderful decorative effect quite apart from the beauty of the bloom, striking as that is.

Though these ramblers are naturally vigorous, to secure, year after year, the freedom and strength of growth that so enhances their beauty, first of all a careful preparation of the soil before planting is essential, and afterward an equally careful cultivation. This does not mean that any elaborate methods are required; on the contrary, everything necessary for success is simple and within the reach of all. The beds should be made three feet square and at least two feet deep. After the soil has been thrown out, the bottom of the bed should be well loosened to the depth of the spading-fork and a generous amount of rich barn-compost thoroughly mixed with the soil. Then alternate layers of soil and manure should be filled in, forked well together, and lightly tramped down till within eight inches of the top, when the bed may be filled up with plain loam. A generous quantity of coarse crushed bone should be added as the bed is made up, and, when the plant is set, a handful of bone-meal should be mixed with the soil around the roots. During the spring and early summer, till about July 1, the bushes should be watered and cultivated at intervals, and established plants will benefit by occasional liberal applications of liquid manure. About July 1 a mulch of spent hops or some coarse litter may be spread over the beds to keep the ground moist during the hot weather, and late in the fall a quantity of leaves should be drawn up around the base of the plants and kept in place by a light covering of salt-marsh hay or other litter.

The best time for pruning is immediately after the blooming season, as this gives the new shoots a better opportunity to develop. In pruning, as many as necessary of the oldest stalks should be removed. For staking, galvanized iron water-pipes, painted dark green, are as satisfactory as anything for the older and larger bushes, while cedar poles or hardwood stakes may be used for those recently set out.*

*Elsewhere in this Annual, in an article entitled "New Uses of Climbing Roses," will be found details relating to an excellent post, of light galvanized iron, suitable for staking roses.—EDITOR.

We have grown Multiflora ramblers in our garden, beginning with the Dawson, for about twenty years, and have tried, at one time or another, most of the varieties that can be obtained in England and America. Brief descriptions of some of the best of these may be of interest.

Baroness von Ittersum. (Leenders and Co., 1911.) Described as a brilliant scarlet-crimson on an orange-red ground. This rose is but little known in America as yet, and my own plant is still too young for me to describe it from personal observation, but Mr. A. J. Fish, of New Bedford, Mass., who has grown it for a number of years, writes me that he considers it the best red rose of this class yet introduced.*

Blush Rambler. (B. R. Cant & Sons, 1903.) A semi-double rose of pale pink color, with lighter center, flowering in heavy clusters. It has a great reputation in England, was awarded the Gold Medal of the National Rose Society, and for the past four years has stood at the head of the "Table of Decorative Roses" given in the Annual of that Society. Strangely enough, it seems to be but little known in this country. Ellwanger & Barry list it in their catalogue, but write me they are unable to supply it this fall (1917). From its color, its vigorous growth, and its time of blooming it is a good companion rose to American Pillar and should be grown with it whenever possible.

Dawson. (Dawson, 1894.) This rose-pink variety still holds its place as one of the earliest flowering Multifloras, and in addition is a very charming rose. It was a cross between General Jacqueminot and *R. multiflora*, and is of interest as being the first Multiflora rambler produced in America.

Dawson Seedling. This rose was raised by my father and is not in commerce. In color it is a pale salmon-pink, fading to cream. We have grown it for almost twenty years, and it has always done well and been entirely free of disease. I have given a plant of this rose to Mr. A. J. Fish, and hope he may propagate from it. The photograph which accompanies this article† was published in the Annual of the National Rose Society of England for 1915, but was there wrongly described as the Dawson Rose. It is reproduced here as being a good illustration of the naturally symmetrical form so often taken by these ramblers.

Goldfinch. (Paul & Son, 1908.) The small compact buds open deep yellow and fade in a single day to a pale lemon-white. A very free-growing, free-blooming variety, with good foliage and no thorns, an advantage that is appreciated by anyone who has to prune one of these large ramblers. The blossom has a distinct and charming fragrance that is as fleeting as its color, and in autumn the bright orange hips are very attractive. Until last year this was the nearest approach to a yellow rose in this class, but in 1916 Dr. A. H. Williams, a vice-president of the National Rose Society, exhibited a yellow Multiflora hybrid, raised by himself, named Emily Gray, which was awarded a Gold Medal and is described as a hardy, vigorous climber with large, dark mildew-proof foliage, and flowers of a rich orange-gold, which is retained till well expanded. It is not yet in commerce, but will be looked forward to with much interest.

Graf Zeppelin. (Boehm, 1910.) It does not seem necessary to carry detestation of German methods so far as to include their roses, and as this one was named in 1910, I have added it to this list. I have made several attempts

*See Mr. Fish's notes in another article.

†See Plate VII, facing page 88.

without being successful, to secure a plant of this variety that came true to name, but the E. G. Hill Co. in their two latest catalogues have expressed the opinion that it is one of the loveliest ramblers, and I am quite ready to accept their estimate of it. Unfortunately, they are unable to supply field-grown plants, but these can be had of the Conard & Jones Co. It is an early bloomer, and the color is pure bright rose.

Hélène. (Lambert, 1897.) This is a lovely rose of pale flesh-color, tinted violet, with flat, semi-double flowers of medium size. It has a very free, gracious habit of growth and is thornless. Ellwanger & Barry include it in their list of roses.

The Lion. (Paul & Son, 1900.) This rose, with me, is not so vigorous in growth as others of this class, but the large, flat, crimson flowers, measuring two and a half inches in diameter, make it perhaps the most striking and brilliant of all the single ramblers. I doubt if this can be had in America.

Tausendschön. (Schmidt, 1907.) Another German rose of the highest merit. The flowers are quite large, of a soft rose-color, and very lasting. It blooms about June 20 and is thornless. A well-grown and well-flowered bush of this rose is a very beautiful sight. There is a white sport of this variety named *White Tausendschön*, but it is apt to have a few light pink markings.

Tea Rambler. (Paul & Son, 1903.) Coppery pink in color. This rose, though almost unknown in America, is very highly esteemed in England. My plant made a splendid growth in its second year. The stout canes seemed well ripened and were clothed with heavy, handsome foliage, but the following winter it was killed to the ground. I decided its Tea blood made it too delicate for this climate and dug it up with regret. At just what locality in this country the Tea Rambler would flourish cannot perhaps be told, but it is worth at least a trial everywhere south of New York. It is a very early bloomer.

The Wallflower. (Paul & Son, 1901.) A very showy rose with large, semi-double, and rather flat flowers that are very lasting. The color is a bright rosy crimson, and altogether it is one of the most effective and decorative roses in this or any other class. It blooms about June 25. So far as I know Mr. Fish is the only dealer who supplies this splendid variety in this country.

White Rambler. (Pemberton, 1914.) Has not flowered with me yet but is described in the "Select List of Roses" of the National Rose Society as pure white in color, very vigorous, and the best white rambler. It is a late bloomer, and the foliage is mildew-proof. A large-flowered, early-blooming white rambler is very much needed at present.

Among other excellent varieties that might well have been included in this list if space had allowed are : *Leuchstern*, *Mrs. F. W. Flight*, *Philadelphia Rambler*, *Wartburg*, and *Wedding Bells*. Of the newer varieties the following are well worth trying: *Andreas Hofer*, *Blanche Frowein*, *Elsie*, *Germaine Lacroix*, *Grafen Ada Bredow*, *Grafen Chotek*, *Hauff*, *Mme. Ghys*, *Marie-Jeanne*, *Starlight*, and *Steil Rambler*. I know of no single catalogue that includes all of these, but most of them can be found in those of *Bobbink & Atkins*, *Rutherford*, N. J., who have an admirable list, and of *Hugh Dickson, Ltd.*, *Belfast*, *Ireland*.

New Uses of Climbing Roses

By THE EDITOR

THE ONE most notable contribution to rose extension which the United States has made is in its development of new varieties of the hardy climbing roses. The efforts of Dr. Van Fleet, the late Jackson Dawson, M. H. Walsh, W. A. Manda, and Joseph A. Farrell (of Hoopes, Bro. & Thomas Co.) have given to the world roses which are a vast advance over the old Baltimore Belle, Prairie Gem, and the like.

But even now the climbing rose is thought of mostly in connection with its capacity to clamber over a trellis or up the side of a house, on a support of a suitable sort. It is not generally realized that the climbing roses are susceptible of training to a notable degree, and that they have many uses aside from their utilization as conventional climbers.

Coming west from Philadelphia on the Pennsylvania Railroad, in June of 1917, I saw, from the car window, a wonderful flash of color just as the train was getting into its speed beyond the Philadelphia city line. A quick glance showed that the color was that of climbing roses, and that the sloping embankment facing the railroad tracks was ablaze with a wonderful show of either Lady Gay or Dorothy Perkins.

A little inquiry showed that this beautiful display was the result of the public spirit of the Editor of *The Ladies' Home Journal*, Mr. Edward Bok, who lives in the vicinity. He writes that the roses were planted on the two banks of the Pennsylvania Railroad near the Merion station some four years ago. There were about three thousand plants used, and the cost of the whole operation mounted up to several thousand dollars.

From Mr. Bok's letter about this notable action in the public interest, I quote the following paragraph:

"I made the planting with a view of introducing the idea of having large numbers of blooming plants in a public position where the people could enjoy them, and yet not pick them—in other words, educating the public up to a love of flowers without the desire of possession. Then, too, I wanted the people on through trains to the west to stop talking dollars and cents for a few moments and fasten their minds on flowers."

Mr. Bok has not mentioned the very important and notable utility side of his planting. The climbing roses hold the bank

quite perfectly and completely, and contrast favorably and economically with the sod covering of the same embankment on either side of this planting. The sod must constantly be mown, but the roses need practically no attention whatever. Here, then, is a delightful, advantageous, and economical use of climbing or trailing roses—for covering embankments.

It may be noted that *Rosa Wichuraiana* is naturally a trailer and but reluctantly a climber. The species itself, as well as its hybrids, such as Alberic Barbier, for instance, serve best for protective or beautifying cover use. One of the Walsh hybrids, named Mrs. M. H. Walsh, is a persistent and very beautiful trailer, with its double white flowers and its pleasing foliage.

In the English rose catalogues one finds descriptions which ascribe to certain varieties the quality of being a "pillar" rose. This use of the climber is comparatively rare in the United States and ought to be increased. The superb single rose, American Pillar, seems by name indicated for this use, but its habit of throwing up heavy canes ten feet or more in length tends to make difficult its restraint to pillar form. Lady Gay, Leuchstern, Dr. W. Van Fleet, Christine Wright, even Climbing American Beauty, are more amenable because of more pliable canes.

A pillar rose is one in which the canes have been trained about a central support in a definite form and to any desired height within the reach of the variety in use. The side shoots are rigorously pruned short—not cut off completely, please note—to follow the post or pillar form. From these shortened shoots arise the bloom-growths of the next season, and the blooms being thus produced close to the central stem, there is a pleasing formality or regularity in their appearance.

The training must be carefully renewed and continued after the blooming season, and it is best regularly to select new shoots from the roots, cutting away those two or more years old.

Even the more rampant climbers may readily be trained into bush-forms which can be grown in the shrubbery with spireas, deutzias, and the like. One way is to plant four strong stakes close to the young climber's stem, say fifteen inches apart at the ground, and radiating evenly to, say, three feet apart, about four feet high. This frame may well be braced across with lighter stakes so that it will retain its form.

Suitable strong shoots of the rose are trained up along these stakes, others not needed being cut out at the ground. As growth proceeds, the shoots are curved inward past the ends of the four radiating stakes and tied together or across the top of the balloon. Later growths are intertwined, always holding to the determined form. The side shoots are pruned somewhat, but not so closely as for the pillar-form.

In bloomtime, such a balloon bush is a lovely object, semi-formal in appearance. In my own Breeze Hill garden, a plant of the wild Chinese prototype of the Crimson Rambler, *R. multiflora* var. *cathayensis*, has been so trained with good effect, its slender, though very long, shoots making the work easy.

Somewhat in line with the bush-form is the training in topiary methods, completely formal, of which Mr. Currey has written entertainingly on page 80 of this Annual.

While the rose-hedge and the rose-arch are by no means new, they are, as well, by no means as frequent developments of the climbers as they ought to be. The handling of the climbing roses in the great collection of the National Rose Test-Garden at Arlington has been admirable in this direction. The garden is outlined by a double hedge, tied together by overhead cross strands of roses. The bloom-effect in 1917 was lovely, and the fan-training method used gave perfect opportunity for the inspection and comparison of each sort as it flowered. The photographs shown on Plate IX, facing page 120, give a hint of the effect.

For the growing of such hedges and arches the question of basis becomes important. I have in my own garden passed through the wooden-post and the wood-covered-iron-pipe-post stage to the plain iron post, on which suitable wires are stretched. It was hinted to me that the climber would not prosper on the plain iron, which hint I have found to be without basis of fact.

The posts used in the Arlington garden are so much better than those I made expensively out of iron pipes, and so much easier to fit with wires to the desired height, that I have hunted up their origin. They are simply galvanized steel fence-posts, having notched-out places for attaching the wire and a good-looking tip, or "finial," as I think it is called. Details of them can be found in the advertising pages of this Annual.

One caution I must write, arising from thorny and aggravated-



PLATE VII. Multiflora Ramblers as grown by Edward K. Butler
(See article, page 82)

ing experience. In buying galvanized wire to form the basis of a rose-hedge or -trellis, by all means insist that your dealer procure honest *iron* wire, really galvanized. Refuse the conventional Bessemer steel wire, barely breathed upon with the weather-protecting zinc; it will not last more than four or five years at best, and would be high-priced at nothing a pound, because of the difficulty of re-stringing with new wire in the presence of a million recurved rose thorns. There is real wire that will last a lifetime, because it is drawn from the billets of pure iron, known, I think, as the "Armco" brand.

A very desirable way to combine hedge, arches, and approximate pillars can be worked with climbing roses. Make the pillars eight or nine feet high, springing an arch across a walk on a form not over eighteen inches or two feet higher. Plan the hedge to be three or three and one-half feet high to the top or third wire (three is enough). Then provide for a graceful festoon from the top wire of the post to the top wire, using either a brass chain—if you can afford the war-price of it—or a durable heavy twine, soaked in oil, that will last about two years. Study the curve with care, and secure it, if twine, with downward braces to the top wire, drawn tight, in which case it will be a series of tangents rather than a curve.

The climbers at the posts—preferably slim, rapid growers like Miss Helyett, White Dorothy, and the like—are to be trained carefully on the festoon, following the curve of it with the soft pliable shoots. One up from the wire and another down from the post will soon meet; others may be curved inside the festoon to act as braces. In not over two years the festoon should be filled out and independent of support. The bloom-effect is delightful, as I will cheerfully prove to anyone who will visit Breeze Hill between May 30 and July 4, or as may be discerned by looking at the Tausendschön festoon shown in Plate VIII.

Perhaps I ought to have headed these notes as unusual rather than new uses of the climbing roses. At any rate, I can assure the experimenter some interesting results if he tries out the uses suggested, and I shall be delighted if he secures actually new and altogether better results in the fascinating work of creating rose-beauty with the newer climbers.

Climbing Roses at New Bedford, Massachusetts

By THE EDITOR

FROM very interesting correspondence had with Mr. A. J. Fish, a specialist in climbing roses whose observations are broad and acute, there are extracted some memoranda respecting certain varieties. These observations were made by Mr. Fish from his notes, and during the winter which, he says, was "the hardest winter I ever remember."

On this question of hardiness, Mr. Fish adds: "Hardiness in roses is an unknown quantity until tried out in each particular garden. It depends on so many conditions or combinations in the environment that no one grower can tell another which ones are surely hardy. . . . The term 'winterkilled' as applied to roses here is a misnomer, for instead they 'spring-kill.' Roses go through the winter in good shape till March, when the strong cold winds blow the life out of the stems."

Mr. Fish's observations cover practically all the climbers available in America or in Europe, and it is obvious that he keeps up with the production of these attractive roses. Lack of space prevents here presenting the interesting data he has recorded on the familiar roses, together with the time of first bloom, of maximum bloom and of final bloom, and in connection with all the other characteristics of the rose under consideration. It is proper, however, to summarize briefly his conclusions with respect to some of the less familiar varieties, on the basis that the whole class of hardy climbing roses is one of great merit, and desirable to have more fully and freely planted.

The observations which follow are compiled from Mr. Fish's notes:

Goldfinch. The hardest yellow Rambler, blooming early in a good-sized cluster. The flowers fade to white. (Oriole is very similar in all respects.)

Baroness von Tittersum. This Multiflora climber has orange-scarlet flowers, shading to yellow at base of petals, of rather large individual size, but in a small cluster. The blooms keep ten days after they are opened, without fading or losing a petal. It is the best Multiflora climbing rose in sight, and the best red Rambler.

American Pillar. The best single Rambler. The flowers keep very well, either picked or on the bush. When in bloom it never fails to stop the crowd.

Auguste Roussel. Large, semi-double, bright pink flowers. Strong, vigorous grower with large glossy foliage.

Purity. Semi-double white; an improvement on the others, with longer stems and larger flowers.

Rowena. An English pink rose with good foliage.

Schiller. A tall pink rambler, said to bloom all season, but failed to do so here.

Hauff. Seedling of Crimson Rambler, but does not mildew. Very vigorous; almost thornless. Color intermediate between Crimson Rambler and Veilchenblau—a violet-purple-red.

Miss Helyett. A very attractive rose, making a long slim growth which can be trained in any form. Flowers usually a combination of pink, apricot, and salmon.

Francois Guillot. A good double white climber, blooming freely, and entirely worth while.

Prof. C. S. Sargent. When well established in a good protected early place, will give the best-colored apricot flowers of any climber. They are very double, slow about opening, and will keep a week after they are open.

Edwin Lonsdale. Double, with pale lemon-yellow flowers, opening to white. Apt to kill back, but will bloom on new wood. I use this rose and Miss Helyett for a ground-cover among the tree roses.

Source d'Or. We hope this will be the best of the second-early golden yellow climbers.

Birdie Blye, Trier, Climbing Clotilde Soupert, Flower of Fairfield, Miss Messman, are varieties which tend toward continuous bloom, or toward recurrent bloom.

A rose as fair as ever saw the North
Grew in a little garden all alone:
A sweeter flower did Nature ne'er put forth,
Nor fairer garden yet was never known.

—WILLIAM BROWNE.

A Successful June Rose Show

By W. PADDOCK, Professor of Horticulture
Ohio State University, Columbus, Ohio

EDITOR'S NOTE.—Professor Paddock's interesting story of the June rose show held by the Columbus Horticultural Society ought to inspire scores of rose-lovers in various parts of the United States to "start something" in the same direction. It is particularly important to note the interest immediately uncovered when a call was made for rose-growers to gather. That the same interest only awaits opportunity for expression in many communities is certain. But little work seems to be required, and it is all pleasant work. Let the United States show its rose colors in 1918!

THE Columbus Horticultural Society is an old and honored institution, but of late years interest in its activities has been at low ebb. Frequently, attendance at meetings would not be over six, but these few were faithful souls and too loyal to allow the Society to sink into oblivion. We have always believed that a horticultural society could find an important work to do, even in a large city, providing, of course, that it attempted to adapt itself to the varying conditions bound to arise.

Some of us were conversant with the splendid work that has been done by rose societies in other cities, notably at Syracuse. After due discussion it was decided that interest in rose-growing could be greatly stimulated in our city. Accordingly a meeting of rose-growers was advertised, and the Rose Division of the Columbus Horticultural Society was launched.

A series of meetings was planned at which various phases of rose-growing should be discussed, the series to be terminated by a rose show in June. This program was carried out in detail. Meetings were held every two weeks, beginning in January and continuing through May. That this movement met a decided want was shown by the attendance. At the first meeting twenty-five people were present, and the enthusiasm was unbounded. Apparently, each member considered himself a committee of one on membership, as at the next meeting fifty were present, and at the third the attendance was swelled to one hundred.

The interest and enthusiasm continued unabated through the season, though inclement weather had to be reckoned with on some occasions.

As the time for the rose show approached, preparation was gotten well in hand by committees of competent workers. A fine showroom on our best street, and close to the center of the city, was provided us without charge by the Cadillac Automobile Company, which also extended every courtesy.

The morning of the show found the committees in readiness but little knowing what to expect. Very soon flowers began to arrive from all parts of the city, and in such profusion that the Secretary literally was swamped for a time. But orderly arrangement soon began to be in evidence, and by noon, Saturday, June 16, 1917, a very creditable show was staged.

The show was open to the public without charge through Saturday and Sunday, and the room was well filled at all times. It was noticeable that not many attended out of idle curiosity, but that all appeared anxious for information of one kind or another. The discussions covered many phases of flower-growing, but principally that of the rose. The variety question was, of course, the most popular topic; then came the subject of growing in all its phases. Conversation flowed easily, and the barrier of restraint was soon thrown down, so that even the more diffident responded to the spirit of good fellowship.

All agree that the first rose show was an unqualified success, and it may now be regarded as a permanent institution.

The displays were divided into ten sections, with several classes. Cash prizes were awarded for first and second places in each case, and all sections were well represented. In all, 223 separate entries were staged.

The list of sections and classes follow:

Section 1.—Best individual rose exhibited.

Section 2.—Tea roses. Best display of three roses.

Section 3.—Hybrid Tea roses.

Class 1.—Best display of five roses.

Class 2.—Best display of three roses.

Section 4.—Hybrid Perpetual roses.

Class 1.—Best display of five roses.

Class 2.—Best display of three roses.

Section 5.—Rambler sprays.

Class 1.—Best collection.

Class 2.—Best single spray.

Section 6.—Best display of Moss roses.

Section 7.—General.

Class 1.—Best five red roses.

Class 2.—Best five pink roses.

Class 3.—Best five white roses.

Class 4.—Best five yellow or apricot roses.

Section 8.—Decorated baskets of roses.

Class 1.—Double roses.

Class 2.—Single roses.

Class 3.—Polyantha and Baby Rambler roses.

*Section 9.—Best decorated table using roses.**Section 10.—Best collection of peonies—named varieties.**Section 11.—Best collection of iris—named varieties.*

The Rose Society of Brookland, D. C.

By MARGARET B. DOWNING, Secretary

EDITOR'S NOTE.—So admirable are the achievements of the rose organization above named that with pleasure we present a brief account of its methods. It should be noted that a June rose show is easy for these real rosarians.

“WHY not call your suburb Roseland?” asked a visitor to the annual rose exhibition held for the past seven years in the Masonic Hall of Brookland, D. C. There was reason in the suggestion.

The Rose Society of Brookland, which entered on its seventh year with the annual meeting of January 9, 1918, is steadily forging ahead. It has the honor of being the first rose society organized in the District of Columbia. It has held an annual exhibition since 1912.

The Brookland organization is entirely composed of amateurs, as to active membership. Professional florists and distinguished botanists have been elected honorary members, but they are without a vote. There are also associate members, including those who do not cultivate roses themselves but who contribute to the expense of the annual exhibitions. But the active members, who govern the Society, must cultivate the rose for mere love of it and not for profit. The Society is conducted on purely scientific lines, index cards, giving the history of all roses in the gardens, being one of the practical methods of recording exact knowledge of the flowers specially commended.

Like other well-regulated societies, the annual business meeting opens the year, and, with the lines of activity definitely laid

down, the Society enjoys talks from practical gardeners, sometimes in its own circle, sometimes invited from Washington. Dr. W. Van Fleet has read several papers before the Society. Dr. Rodman True and the late Dr. Edward Lee Greene, as well as other noted rosarians, have addressed them. The monthly meetings continue until May, when the period of preparing for the Rose Show arrives. There is usually a celebration of a social nature on the birthday of the Society, December 7, but because of the national stress and the general disinclination for any amenity not directly connected with the war, this festivity was omitted in 1917.

Brookland's rose exhibition attracts thousands of visitors, who admire the display, many asking for and receiving cuttings of some specially admired rose. This exhibition is free to the public. Committees of ladies belonging to the Society act as hostesses throughout the two days of the exhibit, explaining all that guests wish to know. At the end of the two days, such of the flowers as remain in good condition are sent to hospitals.

At the first exhibition the award for the most perfect bloom went to an unusually large Paul Neyron. At the second and third exhibitions, the prize was captured by Mme. Caroline Testout. The fourth year, the yellow roses, now so popular, won their first trophy when the gold medal annually awarded by the Society went to an exquisite Lady Hillingdon. The fifth year, the Duchess of Wellington won supreme honors; but last May that lovely stranger, Ophelia, obtained the supreme honor.

Seven medals are distributed each year, six as gifts from various donors and one from the Society.

In the first years of its existence, the annual exhibition of the Society was rather a jumble, and the prizes had to be conferred with a view to placating all contributors. Last year, under the able direction of F. L. Mulford, Director of the National Garden at Arlington, the Brookland Rose Show was arranged similarly to the splendid exhibit made by the American Rose Society in Philadelphia last March. There was an arranged color scheme, a regular order of divisions as to classes and varieties. The method of award presented in the American Rose Annual was followed in the bestowing of medals and ribbons, and the result was an artistic and perfect display.

The Rose Influence of Ophelia

EDITOR'S INTRODUCTION

When E. G. Hill found the rose Ophelia at the great establishment of W. Paul & Son, Waltham Cross, Essex, England, he recognized a winner, and bought the entire stock for introduction in America. He did not realize then that he was importing a potent parent, a rose so virile and outstanding that it would not, could not, stay within bounds.

Such has become the relation of Ophelia to the rose-world since its introduction in 1912. A memorable visit to Mr. Hill's eye-filling rose-home at Richmond, Ind., in late October of 1917, gave the Editor a new conception of the influence and the value of one rose, for Mr. Hill has been using Ophelia as the seed-parent for most of his recent crosses. On page 35 of the 1917 Annual, Miss Hill tells of the sifting down from 2,500 seedlings in 1914 to 800 in 1916, and of the further reduction to fifteen in 1917, held for further scrutiny.

It did seem, as the Editor saw the blooms of seedlings within the fifteen slated for the compost heap, that Mr. Hill was a cruel despot, rather than the gentlest soul in America, but there was pride in the high ideals and the thoroughness which could protect the rose-world from anything but the best that a lifetime of critical effort and study would accept.

Miss Hill wrote of Columbia and of Double Ophelia, both seedlings. Columbia is magnificent! The picture on Plate V, facing page 56, is from a perfect photograph, yet it lacks color, form, fragrance and life—it is but a shadow of a great rose.

But Ophelia in mass is constantly "sporting," as the variation from the type is designated. Why it should sport is a mystery, and to satisfy his inquiring mind the Editor has been seeking to know its parentage. All that is ascertainable is to the effect that Antoine Rivoire, a moderately vigorous Pernet-Ducher introduction of 1896, is one of its parents.

To bring to the discussion of the Ophelia influence the best rose-knowledge, request has been made of two acute and critical growers, whose opinions and observations follow:

Ophelia and Its Progeny

By CHARLES H. TOTTY
President, Society of American Florists

THE influence of Ophelia on American rose-growing continues and, if possible, increases. The new seedlings that have been so widely commented on, raised by the veteran E. G. Hill, are all Ophelia crosses, Columbia, the introduction of this year, being Ophelia crossed with Mrs. George Shawyer, and showing very strongly the predominating characteristics of Ophelia in its beautiful foliage and fine, healthy growth.

This present note, however, deals more particularly with the sports of Ophelia. It is safe to say that at least a dozen of the

larger growers have been singling out and propagating for stock certain sports of Ophelia for possible future distribution. As critically tested, many of these showed deficiencies, either in petalage or color or in some other characteristic, wherefore the number has gradually narrowed down until the list of really worth-while Ophelia sports includes but a few.

I do not know the parentage of Ophelia, but no rose I have ever grown has shown so pronounced a sporting tendency.

Of the sorts to be introduced this coming year, I believe Ophelia Supreme, so far as I can see, to be the best of the whole lot. An improvement over the parent is at once apparent when both are placed side by side. The color is a delicate rose, several shades deeper than the original Ophelia, the base of the petal being flushed with chrome-yellow, lighting up and imparting a brilliant shading to the heart of the flower. It averages about four petals more than Ophelia, which is an advantage, as most sports are deficient in regard to petalage; and the individual texture of the petals will be found much heavier than the original Ophelia. This sport originated with Dailedouze Bros., of Brooklyn, N. Y.

The F. R. Pierson Co., of Tarrytown, N. Y., is distributing two sports of Ophelia this year. One is known as Rosalind,* and is described by its raiser as a coral-pink, changing to apricot-pink. It is, however, quite distinct from the Dailedouze Bros.' Supreme, as was noticed when the two were exhibited together last fall. Silvia, which Mr. Pierson calls the Yellow Ophelia, is a sulphur-yellow, changing to a creamy shading as the flower develops. It does not have the petalage of the Ophelia, and for that reason it is questionable just what position it will occupy in the list of forcing roses. In any case, there is no doubt in my mind but what it will make a wonderful outdoor rose, as Ophelia is such a fine garden rose, and Silvia is quite distinct in color.

Evelyn, which will be distributed by A. N. Pierson, Inc., of Cromwell, Conn., I have not had the pleasure of observing,

*See Plate VI, facing page 73. In a letter concerning Rosalind, Mr. Pierson writes: "Rosalind is a wonderful rose. The bud is very different from the open flower, being on the order of Los Angeles or Mme. Edouard Herriot, while the fully developed color is a lovely shell-pink. This open color has no hint of fading in it, and the rose endures remarkably."

though I understand it has a great deal more texture than the original variety of Ophelia, and varies not so much in color, except that it is of a slightly deeper shade. The flower builds up in the center, entirely different from any other sport, showing a bloom of great depth. Concerning its habit, I am not posted, but presume it is of the same free-flowering quality as its parent.

Another sport that has been basking in the limelight of publicity is the variety known as Breitmeyer's Rose-Pink Ophelia, which originated with Breitmeyer Floral Co., of Mt. Clemens, Mich., and which was distributed in a certain quantity last year. This is a bud-variation and does not come true to type with its parent, as the growth is shorter jointed. As grown with us it lacks the quick-growing habit of its parent. The color, as the bud is about ready to cut, is a delightful shade of rose-pink; but, unfortunately, as the flower develops it shows a lack of petalage, and loses its shape. To my mind, at least, it is not so pleasing.

The E. G. Hill Company is distributing this year a variety called Double Ophelia. Many growers seem to have the impression that it is a sport of Ophelia, but this is not so. It is a seedling, showing the quick-growing habit of Ophelia, and also its fine foliage and stiff stem; but the flower has twice as many petals as the original Ophelia and is about the same color. It is problematic as to whether the additional petalage is an argument in its favor as a forcing rose, because Ophelia, for most purposes and seasons except midsummer, is double enough as a greenhouse forcing rose, and double petalage means a longer season of development in the bud. There is little doubt, however, that the Double Ophelia will eventually find its place as one of the best of the American-raised garden roses.



Rose Families and Their Tendencies

By WALLACE R. PIERSON

Past-President, American Rose Society

OPHELIA is not a sport, but it is certainly sporty! Many roses have the distinction of being varieties, but few, by virtue of their tendency to vary, or sport, produce families. The notable instances of these rose families are Killarney, Radiance, and Ophelia.

So far as Radiance is concerned, the three varieties, Radiance, Red Radiance, and Mrs. Charles Bell are practically alike in all characteristics except in color of flower.

In the Killarney and Ophelia families, however, we find a marked variation in the sports in foliage and in growth, as well as in color and substance of flower. Killarney sports white, and these various white sports differ radically, the difference being more noticeable in foliage than in any other characteristic. The dark-foliaged sports carry an almost bluish cast—so characteristic of varieties that are too single to be valuable and not pure white in color. The White Killarney of today is practically Killarney in foliage and in production of flowers. Following White Killarney, there came a break to smaller foliage and greater flower-production. Dark Pink Killarney, now discarded because of weakness in foliage, and Champ Weiland are the most prominent of this type. The other extreme in foliage is Killarney Queen, and only the fact that with the extremely heavy foliage came a lesser production in bloom accounts for its failure to keep a place among the good roses of commerce. Double White and Double Pink Killarney were heavier in foliage than Killarney, and correspondingly smaller producers of bloom. Double White Killarney, however, has retained its place in spite of this shortcoming, owing to the quality of the flowers. Double Pink Killarney lost out, due to the paleness of color in the flower. Killarney Brilliant is practically the same in foliage as Killarney itself.

As to the Ophelia family, it is a matter of speculation, but I believe that it is fair to expect, in a measure, that the same things will be true of the Ophelia sports as have been true in the case of the Killarney sports.

Rose-Pink Ophelia, smaller in foliage than the parent and more floriferous, corresponds to the dark sports of Killarney with their smaller foliage.

We may expect, in the future, that Ophelia will sport a strong-growing, heavy-foliaged variety which will be a counterpart of Killarney Queen—stronger in growth, heavier in foliage, and not so productive as Ophelia. We may also expect some sports of Ophelia of the small-foliaged type with the probability that the smaller the foliage the darker the color of the flower. Those sports of Ophelia which are being disseminated this season are practically the same in foliage and in growth as Ophelia itself, which, in my opinion, is a strong recommendation, for precedent has proved that varieties which differ in foliage to any marked extent from the variety from which they have sported lose many of the valuable characteristics of the original variety. In the case of Ophelia they have much to lose.

The Ophelia type today stands where Killarney stood some years ago. It has everything to recommend it and few drawbacks. There are great possibilities in Ophelia seedlings, and a good double sport of Ophelia that is pure white in color would be a bonanza. Let us hope for it, watch for it, and welcome it should it come. The range of color in the Ophelia sports is not large enough to hold out much hope, but there is always a chance. Let us hope that when the white sport comes—if it does—that it will be, in plant characteristics, the same as Ophelia itself.

*Yet the rose has one powerful virtue to boast,
Above all the flowers of the field:
When its leaves are all dead, and fine colors are lost,
Still how sweet a perfume it will yield!*

—ISAAC WATTS.

Rose Notes

By THE EDITOR AND OTHERS

THERE follow odds and ends of rose news coming through 1917 to the Editor's desk, which, despite their interest and importance, may be recorded in a brief paragraph. For the 1919 Annual, similar items will be thankfully welcomed.



"Advertising Pays," or good men read the American Rose Annual—which amounts to the same thing. On page 88 of the 1917 issue, in an account of "Roses in the Arnold Arboretum," the Editor mentioned the great rose library in that institution, adding: "Professor Sargent is searching now for what he believes is the only important rose book not yet in the library, which is Rossig's 'Die Rosen'." On a visit to the Arboretum barely a month after the 1917 Annual was in circulation, Professor Sargent delightedly exhibited a fine copy of the rare book in question, which, he said, had been brought to him and added without cost to the Arboretum library by Mr. Thomas N. Cook, of Watertown, Mass. Mr. Cook is an enthusiastic rose amateur, as well as a collector of rare books, and his generosity to the public through the Arnold Arboretum is what might be expected of the combination. It is interesting to quote here from a June (1917) letter from President Hammond: "Today I received word from Mr. Thomas N. Cook that he and his wife were the first bridal couple who visited the Washington Rose Test-Garden."



One Rose in a Vase.—In a letter, Henry Penn, the unusual Boston florist, writes thus as to the effective use of a rose: "We have always endeavored to illustrate the real beauty of the rose by encouraging the use of individual roses in slender, tall vases as the way to secure the best effect in arrangement. No other flower than the rose can create the same effect."



Is the Nation Going Sour?—In a letter about the hysteric thoughtlessness of those whose idea of the successful prosecution of the Great War is that we should relate, all of us, only to "blood and iron," Mr. C. H. Atkins writes: "I am sure that if we work together in 'doing our bit' we shall help to prevent the soul of the nation from going sour. We can do it with flowers; you are right!"



"**'Made in America'** should be the label for all roses planted in this country," writes Prof. C. S. Sargent, of the Arnold Arboretum, in a recent letter to the Editor. Professor Sargent has done more to get the best hardy ornamental shrubs and trees for American gardens than anyone else in the United States, or indeed, than all the rest of us put together. His reach for plants is worldwide, and his knowledge of them the same. He believes in American roses for America.

Hands Across the Sea.—In the "Special Rose Number" of *The Garden*, the great English weekly which is a world authority, the editor of that august publication pays his kindly respects to the American Rose Annual. He is particularly interested in the American rose test-gardens, which he wishes the forty-year-old National Rose Society of England might consider as worthy of imitating. "What fitter and nobler memorial could be founded to perpetuate the memory of that great rose-lover, Edward Mawley, than a National rose-garden?" is his exclamation. After reviewing the salient feature of the 1917 Annual, *The Garden* concludes: "The little book caters for all—the novice and the expert, amateur and professional—and every page of it can be read with interest." So our hands—and our hearts, and the flower of our young manhood!—are across the sea. Britannia and Columbia, John Bull and Uncle Sam, one language, one ideal, one purpose, one flower! May God bless the union; may the hands never unclasp!



Rosa Hugonis is sure to be as much in the eye of the American rose public in 1918 as the scanty stock of it will permit. In the Editor's garden it began to be conspicuous on May 17, even ahead of *R. spinosissima*, and was a feature for ten days. The blooms, borne close to the arching stems, averaged two to the inch of length, and overlapped. The color is a definite yellow, not a mere primrose tint, and the habit of even the little plants was gracefully arching, resembling that of *Spiraea Vanhouttei*. In October, the foliage assumed a lovely purple hue, making the plant then distinct and a second time desirable.

The old plants—some four years planted—in the National Rose Test-Garden at Arlington seem to be most vigorous, stooling out to three feet and more in diameter, with about five feet of height. It is too soon to consider the settled treatment of Hugonis, but the Editor has an impression that it may well be either occasionally—say every three or four years—sheared to the ground, or have the old wood cut out annually.



The "Original Crimson Rambler" form (*R. multiflora* var. *cathayensis*), illustrated and described by Mr. E. H. Wilson in the 1916 Annual, is a most beautiful rose, but giving to the layman no hint whatever of relation to Crimson Rambler. It was in perfection in the Editor's garden about June 10 of last year. The clear pink single blooms are large, and they fade to a lighter pink, not a sickly lavender. The growth of the plant is rampant but slender, shoots ten feet long being not so thick as a lead pencil. It may in consequence readily be trained around a cluster of stakes so as to form a lovely bush about six feet high and five feet through, and is then a notable garden shrub.



The Multiflora Stock for Roses.—In the 1917 Annual, Dr. Robert Huey, a veteran American rosarian, described the method of budding roses on the Japanese Multiflora stock—actually on seedlings of a Japanese strain of *R. multiflora*. Much attention was thereby attracted to this stock, and the demand for it soon absorbed the small supply, mostly in the hands of one nurseryman. It is ascertained that some 200 pounds of Multiflora seed is to be sown in 1918, mostly by two or three live nurserymen who realize the value of the stock and the need for growing it so that roses may be wholly "Made in America." It is hoped that other nurserymen will wake up and get busy on

the seemingly superior substitute for the Manetti and Canina stocks which have heretofore been procured abroad. As may be noted in Dr. Van Fleet's article, "Stocks for Rose Propagation," he believes there should be propagation undertaken in the United States of all needed stocks.



Do You Have a Rose-Garden?—"You may be rich enough to buy a rose-garden as big as the garden of Eden; you may be able to employ competent professional aids to develop it (nay, it is your duty to do so if you cannot spare the time for all the details required in rose-gardening); but unless you, yourself, with your own hands, participate to a greater or less degree in the care of your flowers, there may be a rose-garden, even a beautiful rose-garden, but it will never be *your* garden."—ADMIRAL AARON WARD.



An Unusual Budding Operation.—In June, 1915, a friend brought me a fine pink rose, hoping I could name it for her, but I could not do so. There was one weak branch from which I took a bud, and budded it on a common rose, very low, and cutting off most of the top. The bud set and began to grow, sending out a double branch. By autumn these had grown about four or five inches. Before severe frosts set in I covered the whole top with a glass jar and piled litter about it. In the spring of 1916 the new growth seemed as fresh as ever, but gradually (though still protected by glass) the leaves dropped off and the stems shriveled. I closely examined it and found the root had died or winterkilled, thus affording the bud no nourishment. By way of experiment I cut off the two branches, bud and all, and, after submerging in water for several hours, again worked the identical bud (after scraping off rusty cambium layer) with both branches attached. The bud caught, and not only grew, but bore roses last summer.—MRS. M. S. WADSWORTH, Kamloops, B. C., Canada.



John Cook's Roses.—The great rose depicted as frontispiece to the 1917 Annual, and unnamed save as it was called a "glorified La France," is doing very well at Mr. Cook's home in Baltimore. It has not been placed in commerce as yet. Mr. Cook writes thus under date of December 5, 1917: "I have other very good seedlings, particularly a large double white one, slightly tinged with pink, which is an extra-strong grower. There is also a crimson, with a beautiful bud, and a good bloomer; and a 'pink Ophelia'—a cross between My Maryland and Ophelia—which is very good. Have also some yellow seedlings, and one very large double pink." It thus appears that Mr. Cook is in full vigor, despite his threescore years of rose attention.



M. H. Walsh's New Roses.—The famous originator of Lady Gay, Excelsa, and many other good climbing roses writes under date of January 24, 1918, that he intends to introduce next year, two new ramblers. These he says he has "tested for three years, and they have proved entirely satisfactory, being improvements in color and formation of flower, and distinct in foliage. Only one of these has been named so far, and that is 'La Favorita'!"

In a subsequent reply to further inquiry, Mr. Walsh thus describes his pro-

posed introductions of 1919: "‘La Favorita’ has large double pink flowers, the outer petals of which are distinctly tinged with white, while the center of the flower is a lively bright pink. The foliage is large and of a bronzy hue. This rose is quite distinct from Lady Gay or Dorothy Perkins, the foliage being larger and the plant more vigorous in growth.

"The yet unnamed variety is double and profuse in bloom, the flower being pink, of the shade nearest, as I can describe it, to what, in one of the French rose books, is termed ‘luisante.’ This color is sufficiently distinct to attract the attention of anyone amongst all the ramblers in bloom at the same time."



"The Culture of Garden Roses" is the title of a Bulletin, or "Lesson 121" in the "Cornell Reading Course for the Farm," sent to all members of the American Rose Society by the courtesy of its Secretary, Prof. E. A. White. Dr. A. C. Beal is the author of this excellent treatise, which gives the plain facts most essential to success with roses.



Is There a Critical Date for Rose-Planting?—The Editor has long suspected that dormant roses, held over in spring beyond a certain date and then planted, were handicapped in the race for rose prosperity, and sometimes under sentence of death by reason of that late planting. Inquiry of various growers, some of whom were not so frank as they would have liked to be, because of the advantage of a long shipping season, indicates an approximate confirmation of the critical date theory. Mr. O. Joe Howard, of the J. Van Lindley Nursery Company, Pomona, N. C., thinks he "ought not to ship after March 25 in ordinary seasons, certainly never later than April 1." He refers, of course, to the North Carolina spring, which is early. Other growers hold to the belief that the rose may be carried dormant much later with safety. Some, it is feared, rely too much on storage, with roots protected only by low temperature.

It is desired in the 1919 Annual to have many expressions on this point, and the Editor will welcome detailed and definite expressions, sent to him at any time during the year.



What is a "Pinch" in Rose-Growing?—The expert commercial rose-grower will smile at this question, but full 99 per cent of amateurs, including the Editor of the Annual, will not smile, but repeat the question. That the word as relating to roses is local to the United States appeared in a letter from the great French rosarian, Monsieur E. Turbat, who on January 12 asked the Editor to explain the reference to "pinches" in the 1917 Annual. The question was referred to ex-President Pennock, whose reply is so clear and definite that it is here transcribed as of general interest:

"In America, rose cut-flower crops are timed for certain occasions, as for the holidays. This is done by pinching or cutting off the developing buds. For instance, in the case of Killarney or American Beauty, a pinch about November 20 will produce roses for Christmas.

"Another growth is started immediately below where the bud was pinched or cut off, and this shoot will grow and bloom, so that by controlling heat and water it can be timed to come in almost to an hour, or to a certain day, at least.

"Where roses are desired for exhibition or some purpose making extra-long stems preferable, this operation is gone through twice, or, as we would call



PLATE VIII. Climbing Rose, TAUSENDSCHÖN, festoon-trained (In the Editor's garden)
(See page 91)

it, with 'two pinches.' Usually these flowers are extra fine, having heavier buds and better stems, though in producing them two crops of roses are sacrificed.

"During the dull season the growers, particularly when the market is overloaded, will often pinch off a crop in order to relieve the market of the immediate future, and to bring in a better quality of roses in the four or six weeks it takes to mature the next crop."



American-Grown, Ungrafted, Unbudded "Tree" Roses are practicable, according to Dr. W. Van Fleet, the veteran hybridizer. Sending the Editor the photograph reproduced as Plate III, facing page 24, he writes that this shows "a new white Hybrid Rugosa rose trained as a natural standard by the originator, Mr. J. A. Kemp." Dr. Van Fleet adds: "I think we will soon have colors from the purest white to the most fiery scarlet-crimson, rivaling in finish the better Hybrid Teas and Hybrid Perpetuals." The Kemp rose is own root, own stock, and indicates how enterprising American growers can make up for submarine interferences by producing at home better tree roses.

Concerning this new rose, Mr. Kemp writes under date of February 7, 1918: "This natural standard is a seedling of Conrad F. Meyer \times Frau Karl Druschki. The plant was three years old from this seed when it threw up the tall strong sprout that transformed it into a standard, and which was in its third year's growth when photo was taken, June, 1917. It is of the true Rugosa type, is a strong grower with an abundance of foliage, and is extremely hardy. The plant is now over seven feet high, and the top over three feet across at the greatest diameter. The superb semi-double flowers are produced singly and in clusters on long stems, and when full blown are four inches and over in diameter. The color is a very delicate pink, not unlike the Dr. W. Van Fleet, and the rose is strongly but delightfully perfumed. It will be introduced in due time by J. T. Lovett under the name of Fern Kemp."



Pacific Coast Roses.—The Queen of Flowers is a definite sovereign in the Pacific Northwest. Mrs. Edgar Blair, of Seattle, sends us notes of the Seattle Rose Show of 1917 which make us envious for the Atlantic seaboard. An outdoor rose exhibition covering 70 x 200 feet, and including "20,000 roses of about 500 varieties," held to benefit the "Fatherless Children of France," is an evidence of the interest and the success of our transcontinental friends. It is to be regretted that we cannot print in full, in the space limits of the Annual, Mrs. Blair's critical and careful comments on rose varieties, or show the own-root rose tree ten feet high, with a three-inch trunk, grown in only four years.

Mrs. Blair is a true American, and hopes soon to see new roses listed from their introduction in this country. "So say we all of us!"



Joining Hands with France in the Arnold Arboretum.—In the American Rose Annual for 1917 appeared a list of the species and subspecies of roses actually growing in that world's storehouse of hardy plants, the Arnold Arboretum, at Jamaica Plain, Mass. This important collection, available to all for study and appreciation, is now considerably augmented by the receipt of 122 species and subspecies, propagated from the collection of M. Maurice L. de Vilmorin, at Les Barres, France, by a distinguished French nurseryman, Monsieur L. Chenault, of Orleans.

It is through the consideration and study of such great collections that the rose will come into its own in America. These fixed natural forms possess, in many cases, great beauty of form, foliage, or flower, and among them will be found species to serve admirably for shrubbery uses.

In his letter transmitting the list of species included in the Vilmorin collection, Professor Sargent writes: "A set of these roses has been sent to the Park Department of Rochester, to be planted with their large collection of rose species and old-fashioned garden roses." This means an increase in the already great value of Highland Park, Rochester, N. Y., itself in effect an extension station of the Arnold Arboretum. Elsewhere in this Annual Mr. John Dunbar, who has made Highland Park what it is, tells of the rose collection there.

Rose-lovers who can visit in June either the Arnold Arboretum—just a short distance out from Boston—or Highland Park in Rochester, are certain to have much pleasure and to acquire valuable information as they see those rose species bloom.



Getting the Best of the Rose Midge.—It has been the erroneous impression that the rose midge (*Neocerata rhodophaga* Coquillett), described on page 63 of the 1916 Annual, was a menace only to greenhouse roses, and that it hibernates altogether under glass. Mr. August Koch, the notable Alsatian gardener who has carried out Jens Janssen's great plans in Humboldt Park, Chicago, as mentioned in Mr. J. F. H. Heide's interesting article on page 29, has worked out the facts concerning this pest, and has succeeded in developing a method for its control. Mr. Heide writes: "The Illinois Experiment Station, at Urbana, and the United States Bureau of Entomology, at Washington, both have had their specialists on the ground to study Mr. Koch's methods."

Briefly, the treatment developed by Mr. Koch consists in keeping on the rosebeds a persistent mulch of tobacco-stems throughout the season.

Mr. Koch has also given close attention to developing roses that will endure city smoke and dust. It is a question whether it would not be better for the people in such cities to assume the position that when rose foliage could not endure the atmosphere it was unfit for inhalation into human lungs! Yet efforts to have roses persist where most people exist are always commendable.



Rose Importations for 1917.—Great interest was excited by the publication in the 1917 American Rose Annual, on page 56, of a table of importations of rose plants and stocks for the four fiscal years ending June 30, 1913, 1914, 1915, 1916. The figures were obtained from the Federal Horticultural Board. Desiring to bring the importation statistics up to date, reference was had to the published report of the Federal Horticultural Board for the year ending June 30, 1917, on page 10, of which there is a showing in detail which indicated that the United States received 12,382,134 roses and 5,876,344 rose stocks during a single year. As this meant more than double the importation of any previous year, and as it was well known that importing was more difficult rather than less difficult, inquiry was instituted, with the result of bringing about a confession that the total importations of rose plants for the period in question actually were 1,956,689. The secretary of the Federal Horticultural Board writes: "This unfortunate error is very regrettable, and I am unable to account for it."

Of the roses thus imported in 1917, 1,648,375 came from Holland; 107,827 from England; 104,995 from France; 85,053 from Ireland; 9,953 from Scotland; 400 from Belgium; 52 from the Azores; 36 from Japan.

The New French Roses

Reported from correspondence with MONSIEUR E. TURBAT, Orleans, France

M. TURBAT writes, "I am sorry to let you know that, owing to the actual circumstances, no roses were sent out in the spring of 1917. I answer with great pleasure the courteous demand of the Editor of this very fine Annual for the list of new roses which have been disseminated in France in 1916, which are, as far as I know, those which follow.

"It is difficult to form an opinion on these roses, as I have seen their flowers only on young plants, and it is generally easier to appreciate them the second year. However, it is a duty to say that our great hybridizer, Pernet-Ducher, scored the first prize at Bagatelle with Mme. Caristie Martel for the best variety of French origin; also that his two seedlings, Raymond and President Bouche, followed it very closely.

"The list seems more like a page of a catalogue than an article for this Annual. The descriptions have been abbreviated from those of the raisers." (The list follows, slightly condensed.)

Pernetianas

Charlotte Chevalier. (Chambard.) Sport of Arthur R. Goodwin. Differs in color, beautiful dark canary-yellow.

Mistress Bullen. (Pernet-Ducher.) Growth vigorous, branching; large, moderately full flower of cochineal-carmine, shaded yellow, passing to carmine-lake.

President Bouché. (Pernet-Ducher.) Growth vigorous, branching; large or medium-sized flower of coral-red, shaded prawn-carmine-red.

Raymond. (Pernet-Ducher.) Growth vigorous, spreading, erect, branching; glossy green foliage; long bud; very large, full, globular flower, outer petals peach-blossom, center salmon-carmine or orange-carmine, darker at base.

China

President Magnaud. (C. Nabonnand.) Flower reflexed, small, semi-double, dark velvety red; very perpetual.

Hybrid Perpetual

Anne Laferrère. (C. Nabonnand.) Flower cup-shaped, large, full, erect, deep velvety blood-red; very strong grower.

Teas

Comtesse Cecile de Forton. (C. Nabonnand.) Flower cup-shaped, enormous (20 inches circumference), double, erect, sweet-scented, rose-peach; sarmentous.

Mme. Charles Singer. (C. Nabonnand.) Flower large, double, erect, garnet

on opening, dark velvety purple-garnet when expanded, keeps a long time; very vigorous.

Hybrid Teas

Charles Cretté. (Chambard.) Growth vigorous; splendid elongated bud; flower very large, beautiful velvety rose. Excellent.

Clement Paucud. (Chambard.) Growth vigorous; flower very large, brilliant carmine; continuous bloomer.

Mme. Caristie Martel. (Pernet-Ducher.) Growth very vigorous, branching; flower very large (5 to 6 inches diameter), globular, large petals, pure sulphur-yellow, deeper in center. Its enormous size and pure yellow color, without any blending, make it quite a distinct novelty. Received Bagatelle Gold Medal.

Mme. Meha Sabatier. (Pernet-Ducher.) Growth very vigorous, spreading, branching; velvety crimson bud; flowers large, full, globular, bright crimson. Excellent bedding rose.

Mme. Robert. (Chambard.) Growth vigorous, erect; bud long; flower large, double, nankeen-yellow with chamois reflexes; very floriferous.

Magali Bonnefon. (C. Nabonnand.) Sport of Mme. A. Chatenay. Flower reflexed, semi-double, erect, sweet-scented, Eglantine color, aiglets of petals golden yellow, reverse bright salmon-rose.

Senorita Carmen Sort. (Pernet-Ducher.) Growth vigorous, erect, branching; flower large, full, globular, Indian-yellow, shaded with pale carmine-pink, top of petals bordered bright carmine. Valuable for its long-stemmed, lovely-shaped flowers and strong growth.

Dwarf Perpetual Polyanthas

Andree Lenoblé. (E. Turbat & Co.) Growth strong, erect; wood and foliage nice green; large flowers in enormous corymbs of fifty to one hundred, double, imbricated, pure bright rose or clear red, very long-keeping, not fading nor turning violet; very early bloomer.

Baby Lyon Rose. (E. Turbat & Co.) Growth dwarf, erect; wood reddish, slightly prickly; clear green foliage; Polyantha-sized flowers in nice umbels on strong erect stalks, double, not too full, peony-form, coral-red, shaded chrome-yellow, nasturtium-red or shrimp-red, more accentuated than in Lyon Rose, more color of Mme Edouard Herriot. Good for all purposes.

Henriette Perier. (E. Turbat & Co.) Growth dwarf, erect; wood clear green; nice green foliage; well-formed double flowers in large corymbs, cactus-flowered type, passing to clear rose when opening, long-keeping. Very good for bedding, potting and cut-flowers; a good companion to Cecile Brunner and George Elger in the latter respect.

Perpetual Climbing Polyantha

Ghislaine de Féligonde. (E. Turbat & Co.) Strong grower, freely perpetual and floriferous; flowers in clusters of ten to twenty, bright yellow; opening coppery aurora, with golden yellow aiglets, passing to yellowish white, tinted delicate flesh-color. Very effective.

Wichuraiana Hybrid

Eugène Jacquet. (E. Turbat & Co.) Cross of two unnamed seedlings, a red Wichuraiana and a pink Multiflora. Growth strong, erect; foliage nice, glowing green; flowers large, double, fragrant, in clusters of twenty-five to thirty, cherry-carmine-red, long-keeping. Very early bloomer. An interesting departure.

Roses Retained and Discarded

By GEORGE C. THOMAS, JR.

EDITOR'S NOTE.—The reader is requested to read the statement on page 122 relating to this article.

IN changing the location of my rose-garden, as was carefully done in the fall of 1917, the roses which had been sufficiently tested and had not come up to a certain standard were eliminated. Satisfactory roses were retained, and, also, new roses, not thoroughly tried, were saved for a further test. In the following lists it will be understood that a number of roses have been discarded which are of fair merit, but which are not so good as other varieties of approximately the same type and color.

It is believed that the results of these tests, with the variations and characteristics as given, will aid rose-growers to determine which roses are desirable to cultivate in this climate.

The varieties discussed include, except where noted, the Teas and Hybrid Teas. No mention has been made here of Rugosas, Austrian Briers, rose species, and other large-growing types which have been retained merely for massing purposes.

Polyanthas as a class have been omitted, because low decorative varieties were not needed, and the Hybrid Teas were preferred on account of their value both for cutting and garden decoration. The Polyanthas may be used to advantage for edging a bed of other plants. The Chinas and the Irish single roses (Irish Elegance, etc.) were mostly eliminated for the same reason, and while some of these are distinct in their colors and of good growth, they are of no use as cut-flowers.

All new roses have been kept, but only those showing special promise have been listed.

There are a few roses which cannot be grown to advantage in an ordinary bed, but, being desirable, are successfully grown in the "special bed," designed by the late Mr. Frederick W. Taylor, of Philadelphia, whose experiments with different kinds of soil, particularly with relation to the growing of grass and golf-greens, are well known. His "special bed" for roses has given the best results with weak-growing varieties and those inclined to lose their foliage early.

VARIETIES RETAINED

Where the phrase "Use Multiflora" occurs, it relates to the stock on which the rose in question has been found to do best.

Admiral Ward. Beautiful color and form; fair growth and blooming qualities.

Alexander Hill Gray. Good foliage and form; growth fair; blooming qualities good. Use Multiflora.

Antoine Rivoire. Beautiful color and foliage; unique form; growth strong, not bushy; fair bloomer; best in spring.

Arthur K. Goodwin. Attractive color; good form; growth, foliage, and bloom fair only; kills back to ground. Use Multiflora.

Beron Palm. Tall growth; pretty color; fragrant; blooming qualities fairly good.

Belle Siebrecht (Mrs. W. J. Grant). Good growth; nice color; fairly good in form and blooming qualities. Use Multiflora.

Betty. Strong upright growth; beautiful color; good bloomer, attractive bud.

Cardinal. Bushy growth; excels in perfume and blooming qualities. Use Multiflora.

Cecile Custer. Growth and blooming qualities good; color clear, not of the best.

Chateau de Clos Vougeot. Growth above average; wonderful color; good fragrance; fair bloomer. Use Multiflora.

Cheerful. Distinct and beautiful color; fair growth and foliage; very attractive, though shy bloomer.

Chrissie MacKellar. Splendid growth and foliage; color attractive; excellent bloomer, especially decorative.

Cleveland. Beautiful color; fair growth; inclined to be a shy bloomer.

Cleen. Large blooms of distinct color and good form; fair in growth; shy bloomer.

Comte G. de Rochemur. Average growth; good foliage. Especially valuable for its blooming qualities.

Comtesse de Rafells St. Sauveur. Semi-double; good growth and foliage; not a good bloomer.

Comtesse du Cayla. A China of distinct color; good in growth, foliage, and bloom.

Constance. Pernetiana; wonderful color; growth and foliage only fair; hard to establish—liable to winterkill.

Countess of Shaftesbury. Foliage, growth, and form good; color clear and attractive; fairly good bloomer. Use Multiflora.

C. W. Cowan. Good in growth, color, and bloom; strong perfume.

Daily Mail (Mme. Edouard Herriot). Best of the Pernetianas so far. Attractive and distinct color; perfectly hardy; foliage beautiful in spring, but lost early; fairly good bloomer. Use Multiflora.

Dorothy Page Roberts. Growth tall and upright; attractive dark leathery foliage; flower semi-double, nice color; does not last well; fair bloomer.

Duchess of Sutherland. Good growth, foliage, color, and form; fair in bloom.

Duchess of Wellington. A valuable rose, good in growth, foliage, and bloom; of attractive and distinct color.

Duchess of Westminster. Growth and foliage above average; color and form good; variably hardy; shy in blooming.

Earl of Warwick. Beautiful color; good form; average growth; fairly good blooms; stems rather short. Use Multiflora.

Ecarlate. Strong bushy growth; splendid foliage, wonderful amount of bloom.

Decorative rose, doing best on Multiflora.

Edith Part. Growth fairly good; blooms of good color. Being tested for first time on Multiflora stock.

Edward Mawley. Brilliant color; fragrant; good growth and form; fair blooming qualities. Use Multiflora.

Ellen Willmott. Color and growth above average; fine foliage; good form; fairly good in blooming.

Ell Hartmann. Color attractive; growth and foliage very good; blooming qualities above average. Excellent cutting rose on account of its splendid lasting qualities.

Etincelante. Growth good to very good; color and form pleasing; blooming qualities above the average. Use "special bed" for best results.

Florence Pemberton. Excellent growth; color and form attractive, not of the best; fairly good bloomer. Use Multiflora.

Frau Bertha Kiese. Color very attractive; growth fair to good; fair bloomer.

Frau Kari Druschki. Hybrid Perpetual; fine strong growth; wonderfully attractive in color and form. In this climate has good amount of bloom during June and July, with few late blooms in cool seasons. Splendid bloomer in Portland, Ore.; reported to be of everblooming habit in the South; does remarkably well in New England.

Frau Margrethe Moller. Fair growth and foliage; color and form not of best; excellent blooming qualities. Needs time to become established.

Frau Math Noehl. Color pleasing; growth, foliage, and form good to very good; not a profuse bloomer.

Frau Oberburgermeister Piecq. Fair growth only; not a good bloomer; retained for its distinct color.

Freifrau Ida von Schubert. Color clear; growth and foliage above average; satisfactory bloomer. Form not of best.

Freifrau von der Goltz. Nice growth and foliage; pretty color; fair bloomer.

General MacArthur. An all-round rose. Growth above average; good color and fragrance; blooming qualities fairly good. Improved slightly on Multiflora.

General-Superior Arnold Janssen. Excellent in color and lasting qualities; nice growth; fairly good bloomer.

Geoffrey Henslow. Classed as Hybrid Tea, but has Hybrid Perpetual characteristics; good growth and color.

- George Arends.** Hybrid Perpetual; good growth, color, form, and foliage. One of best bloomers in its class.
- George C. Waud.** Distinct color; good in form and fragrance; average growth; fair bloomer. Does best on Multiflora.
- Gorgeous.** Beautiful and distinct color; growth is fair; blooming qualities not especially good.
- Grace Molyneux.** Particularly attractive in growth, color and form; blooming qualities fairly good; foliage tends to mildew. Excellent cutting rose in spring.
- Grange Colombe.** Of all-round worth. Color clear, attractive; form almost perfect in bud; strong grower; splendid bloomer.
- Grossherzog Friedrich.** A valuable rose, notable for its color, fragrance, blooming and lasting qualities; growth good; form of open flower pleasing.
- Gruss an Aachen.** A Polyantha having general characteristics of a Hybrid Tea. Attractive color; very good in blooming; fair growth. Useful mainly as a low decorative, although having some value as a cut-flower.
- Gruss an Teplitz.** As a tall decorative rose it cannot be equalled. Splendid in growth, hardiness, color, fragrance, and blooming qualities. Grown on Multiflora, may be used as a low everblooming climber.
- Gustav Grunerwald.** A good rose, although not one of the best. Varies from good to very good in most qualities; the blooming is above average. Use Multiflora.
- Gustave Regis.** Tall growth; very good bloomer. Useful mainly as a decorative rose. Best on Multiflora.
- Hadley.** Color distinct; growth and blooming fair; foliage quite good; best in the spring. Use Multiflora.
- Harry Kirk.** Color clear; very good in growth, foliage, and hardiness; form almost perfect in bud, not so good in open flower; fairly good bloomer.
- Helen Good.** Sport of Maman Cochet. Good in growth, foliage and form; color pleasing, not of the best; fair in blooming. Use Multiflora.
- Herzogin Maria Antoinette.** Rather low bushy growth; color and form attractive; good bloomer. Use Multiflora.
- Herzog Johann Albrecht.** Fairly good growth and foliage; attractive color.
- H. F. Ellers.** Growth slightly above average; color distinct, not of best; form and blooming qualities fair.
- Hoosier Beauty.** Color brilliant and beautiful; growth and bloom not of the best.
- Hugo Roller.** Most attractive and distinct color; very good form; low growth; not hardy. Being tested on Multiflora, on which growth appears to be stronger.
- H. V. Machin.** Growth, foliage, and form good; flowers large, beautiful color. Should rank with the Hybrid Perpetuals, there being little bloom after spring.
- Jacques Porcher.** An excellent rose. Splendid in color, foliage, blooming qualities, and growth.
- Jonkheer J. L. Mock.** Distinct; notable for color, size, stem, and lasting qualities; tall growth, lacking in bushiness; fairly good bloomer. Use Multiflora.
- Joseph Hill.** A beautiful rose. Most attractive in color and form; growth and hardiness cannot be depended upon. Gives best results in "special bed," Multiflora ranking next.
- Josephine.** Color very attractive; growth and blooming qualities not of the best.
- Kaiserin Augusta Victoria.** Color, form, and foliage very good; growth average; not a profuse bloomer. Climbing sport that is preferable to dwarf. Use Multiflora.
- Killarney.** An old favorite and an all-round rose, but with several marked faults. Growth and blooming qualities good; color beautiful; attractive in bud form but not in open flower; foliage mildew.
- Killarney Brilliant and Killarney Double Pink.** Sports of Killarney. Fair, having the faults of their parent, but not so good growers or bloomers.
- Killarney Queen.** Best of the Killarney sports. Almost as many blooms as its parent, with more substance.
- Lady Alice Stanley.** Excellent for cutting. Color good; bloom lasts well; fair grower; moderately good bloomer.
- Lady Ashtown.** Distinct and attractive in color and form; good growth and foliage; blooming qualities fairly good. Also doing well on Multiflora.
- Lady Dunleath.** Beautiful color and form, especially in bud; growth average; foliage good; blooming qualities fairly good.
- Lady Greenall.** Color and form attractive; growth and blooming not good. Being tested for first time on Multiflora where it seems to be improving.
- Lady Hillingdon.** Color most distinct and beautiful; fairly good in blooming; growth fair only; hardiness varies—otherwise would be one of best yellows. Use "special bed."
- Lady Katherine Rose.** Especially good on account of its color, form, stem and lasting qualities; good grower; shy bloomer, needing "special bed" for best results.
- Lady Pirrie.** Notable for its growth, blooming qualities, and beautiful color. Useful for cut-blooms in cool weather.
- Lady Plymouth.** Improved type of the older yellow Teas. Good in color, form, and lasting qualities; foliage especially fine; growth bushy; fair in blooming.
- Lady Roberts.** Color and foliage attractive; growth and bloom good. Does well in Portland, Ore. Use Multiflora.
- Lady Ursula.** Best pink decorative rose. Excellent in growth and blooming qualities; good form and color. Use Multiflora.
- La France.** Very good in fragrance and blooming; growth above average. An old rose, not a favorite with some, but if grown in poor soil, in a bed which drains well, and is not fed, will be found valuable. Does best on Multiflora.

- La Tosca.** Splendid for garden decoration. Noteworthy in growth, blooming, and hardiness; color good; bud fair in shape, but opens loose.
- Laurent Carle.** Beautiful cut-flower because of its clear color, good shape, and lasting qualities; fair growth; fairly good bloomer. Improved on Multiflora; does particularly well in a "special bed."
- Lieutenant Chauré.** Notable for its color and perfume. Growth and form fair; blooming qualities fairly good.
- Louise Catherine Breslau.** Pernetiana of wonderful color; foliage particularly glossy and attractive, but, like the majority of roses of the type, is lost early; fair in growth; shy in blooming.
- Louise Welter.** Polyantha; almost identical in color and form with Gruss an Aachen; better growth but less bloom.
- Lucien Chauré.** Attractive in color and form; foliage and growth quite good; a satisfactory bloomer in "special bed;" in regular bed fair results may be expected.
- Ludwig Moeller.** New yellow Hybrid Perpetual. Has not yet shown particularly good results; retained for its novel color in this type of rose.
- Lyon Rose.** Pernetiana of wonderful color; growth good; stem usually weak; fair bloomer only; needs "special bed."
- Mabel Drew.** Retained for beauty of flower in color and form; growth is fair, hardiness varies, and blooming is shy.
- Mme. Agathe Nabonnand.** Attractive color; fairly good in growth, foliage, and blooming. Resembles Grange Colombe in color and character of growth.
- Mme. Bardou Job.** Average growth; very good color; especially attractive in bud-form; fair in blooming.
- Mme. Caroline Testout.** Notable in color and fragrance; good bloomer; not of the best in form or growth. A favorite; most remarkable in Portland, Ore., where it is grown to perfection.
- Mme. Charles Dubreuil.** Color and growth very good; foliage and form above average; blooming qualities fairly good. At its best in cool weather.
- Mme. Charles Lutaud.** Color most distinct and attractive; beautiful bud, not so good in open flower; growth, foliage, and blooming qualities fair; hardiness varies. Use Multiflora.
- Mme. Colette Martinet.** Growth fair only; quite shy bloomer. Retained on account of its beautiful color.
- Mme. Constant Soupert.** Attractive color; growth and blooming qualities not good. Being tested on Gloire de Rosomanes stock, where it seems to be improving.
- Mme. Edmee Metz.** Notable in growth, foliage, color, form, and lasting qualities; very good bloomer. A valuable rose. Use Multiflora.
- Mme. Edmond Rostand.** Color, form, and lasting qualities very good; growth above average; bloom fair. An improved Prince de Bulgarie, having less bloom.
- Mme. Isaac Pereire.** A Bourbon of good growth. A splendid rose, with a wonderful blooming record all season.
- Mme. Jenny Gillemot.** Most attractive in color and form; good growth and foliage; shy bloomer.
- Mme. Jules Bouche.** Best light-colored rose; useful both for cutting and decorative purposes; growth and blooming qualities splendid; color clear, beautiful.
- Mme. Leon Pain.** A good rose. Color most attractive; satisfactory in form, growth, and blooming qualities.
- Mme. Marcel Delanney.** Wonderful cut-flower, having beautiful color and fine long stems; fair bloomer; good foliage.
- Mme. Maurice de Luzé.** Noteworthy for its wonderful fragrance and vigorous growth; color tending to lilac; blooming qualities good. Does better on Multiflora.
- Mme. Melanie Soupert.** One of the most beautiful roses in cultivation. Especially good in color, size, substance, and stem; growth tall, not uniform nor bushy; blooming qualities only fair. Until grown on Multiflora, was considered merely a collector's rose. On this stock better results are had than when grown in a "special bed."
- Mme. P. Euler (Prima Donna).** Fair growth and bloom. Being tested on Gloire de Rosomanes stock, where it seems to be improving.
- Mme. Philippe Rivoire.** Very much on the order of Mme. Melanie Soupert but larger and darker. Beautiful color; good growth; splendid buds; shy bloomer.
- Mme. Ravary.** Color very pretty; good growth, foliage, and bloom; bud attractive. Use Multiflora.
- Mme. Renée de St. Marceaux.** Fair growth. Good color and quite a bloomer. At its best in the spring.
- Mme. Rodolphe Arnaud.** Very good color and form, lasting; growth not of best; fair bloomer.
- Mme. Second Weber.** A satisfactory rose. Beautiful color; almost perfect form; growth fair; blooming qualities very good; lasts well; splendid cut-flower. Does very much better on Multiflora.
- Mme. Vermorel.** Attractive in color; form of rose varies; good growth and foliage; fair bloomer. Does well in hot weather.
- Mlle. Simone Beaumex.** Attractive in color; beautiful bud, which opens quite well; growth tall and strong, not especially bushy; blooming qualities good. Use Multiflora.
- Maman Cochet.** Most attractive in form and color; lasts well; good growth and foliage; a shy bloomer. Use Multiflora.
- Margherita Croze.** Attractive color and form; growth good; blooming qualities fair.
- Marie Adelaide, Grand Duchess of Luxembourg.** Heretofore a small grower and shy bloomer; beautiful and distinct color. Being tested on Multiflora stock on which growth is improving.

- Marie van Houtte.** An old favorite. Note-worthy in color and lasting qualities; growth and form good; quite a bloomer.
- Marquise de Ganay.** Very good in growth, color, and lasting qualities; good bloomer; sweet fragrance. Use Multiflora.
- Marquise de Sinety.** Of distinct color, but heretofore only fair in growth and blooming, and varying in hardiness, both on Brier and Multiflora stocks. Tested for first time on Gloire de Rosomanes stock, where it seems to have improved.
- Mary, Countess of Ilchester.** Fine cut-flower variety. Excellent in form, color, lasting qualities, foliage, and stem; growth good; shy bloomer.
- Melanie Niedieck.** Color clear and attractive; blooming qualities fair. Growth fairly good on Brier stock, being tall, not particularly bushy. Also being tested on Multiflora, on which it is reported to be satisfactory.
- Mevrouw Dora van Tets.** Brilliant and attractive color; foliage good; growth and form below average; fair bloomer.
- Milady.** Being tested on Multiflora stock and showing up fairly well in growth, foliage, and blooming qualities.
- Mildred Grant.** Small growth; attractive blooms. Being tested for first time on Gloire de Rosomanes stock.
- Miss Alice de Rothschild.** Beautiful color; growth and foliage only fair; hardiness varies; form good; blooming fairly good. Needs time to become established.
- Miss Cynthia Forde.** Growth, foliage, and color very good; blooming fair. Use Multiflora.
- Mrs. Aaron Ward.** One of the most popular yellows. Blooms small, distinct in color but inclined to fade; foliage and form good; growth bushy; fair bloomer.
- Mrs. Ambrose Riccardo.** Growth and form above average; color distinct; blooming qualities fairly good.
- Mrs. Amy Hammond.** A good rose in all except blooming, which is fair.
- Mrs. Andrew Carnegie.** Fairly good in growth and bloom. Does especially well in midsummer.
- Mrs. A. R. Waddell.** A useful decorative rose, doing best on Multiflora. Notable for its growth, blooming qualities, and distinct color.
- Mrs. Bertram J. Walker.** Fair growth only; large, very attractive blooms; foliage lost early; not a continuous bloomer. Retained for its beautiful spring blooms.
- Mrs. B. R. Cant.** A good rose. Unique color; excellent foliage; blooms very well; growth good. Use Multiflora.
- Mrs. Charles Custis Harrison.** Above average in color and fragrance; good grower; fairly good bloomer.
- Mrs. Charles E. Pearson.** Very distinct color; good form; poor growth; shy bloomer. Retained merely for its attractive color. Being tested on Multiflora, on which it may improve.
- Mrs. Charles Reed.** General characteristics fair to good; varies in hardiness; shy bloomer; attractive cut-flower.
- Mrs. David Jardine.** Growth tall and bushy; good foliage and blooming qualities; color and form not of best. Useful as decorative variety. Use Multiflora.
- Mrs. Dudley Cross.** Improved Marie van Houtte. Good growth, form, and color, although not of best; fair bloomer.
- Mrs. Edward Powel.** Brilliant color; growth and blooming fair; best in spring.
- Mrs. Forde.** Odd and attractive in color; growth, foliage, and form good; fairly good bloomer.
- Mrs. Frank Bray.** Good growth, foliage, and color; fairly good bloomer; small flowers after spring.
- Mrs. Franklin Dennison.** Beautiful flower; tall growth; fair foliage and blooming qualities; most attractive cutting rose.
- Mrs. Fred Straker.** Excellent color and form; growth good; hardiness varies; fair bloomer; small flowers best in spring.
- Mrs. Frederick W. Vanderbilt.** Wonderful color; good form, which is retained; growth only fair; shy bloomer.
- Mrs. George Gordon.** Good growth, color, and blooming qualities.
- Mrs. George Preston.** Tall growth; distinct color; fair bloomer.
- Mrs. George Shawyer.** Satisfactory rose, particularly in color, lasting qualities, and stem; form good; growth above average; fair bloomer. Use Multiflora.
- Mrs. Harold Brockelbank.** Especially attractive in color and form; growth a trifle above average; blooming qualities fairly good. Does particularly well in a single-row bed, and is so marked, in conjunction with the plants of Dr. Huey.
- Mrs. Herbert Hawksworth.** Fair all-round rose; good color; growth average; blooming qualities fairly good.
- Mrs. Herbert Stevens.** Growth and color good; foliage inclined to mildew; fairly good bloomer.
- Mrs. Hugh Dickson.** Retained on account of its attractive color and foliage. Growth and blooming qualities not good; variable in hardiness.
- Mrs. John Laing.** Good Hybrid Perpetual. Color clear; fragrant.
- Mrs. Joseph H. Welch.** Tall growth, good foliage, and large blooms; shy bloomer; not of best color. Retained for remarkably large and attractive spring flowers.
- Mrs. MacKellar.** Beautiful clear color; bud almost perfect in form. Not so good in open flower; fair growth; shy bloomer.
- Mrs. R. D. McClure.** Fair in growth and blooming; color attractive.
- Mrs. Stewart Clark.** Growth very good; flowers attractive; Hybrid Perpetual in blooming characteristics. Retained for its wonderful amount of spring bloom.
- Mrs. T. Hillias.** Color attractive; pretty bud-form, poor open flower; growth good to fair; inclined to be shy bloomer.

- Mrs. Wemyss Quin.** Beautiful color; foliage wonderful in spring, lost early; only fair; shy bloomer.
- My Maryland.** Color clear and distinct; form and growth good; fairly good bloomer; lasts well; attractive cut-flower.
- Natalie Bottner.** Pleasing in color and form, later tending to ball somewhat in wet weather; growth and bloom good.
- National Emblem.** Beautiful color; good form. Growth and blooming qualities below expectations during second season.
- Nellie Parker.** Attractive in color; somewhat lacking in growth and blooming.
- Old Gold.** Wonderful and distinct color; good bloomer; growth and shape fair; most attractive in bud-form.
- Ophelia.** Beautiful clear color; good form and blooming qualities; growth above average; fragrance quite marked for light-colored rose; excellent cut-flower. Does better on Multiflora.
- Paul Neyron.** Good Hybrid Perpetual; attractive; occasional bloom after spring.
- Perle von Godesberg.** Sport of Kaiserin Augusta Victoria, greatly resembling it. Especially noteworthy in color, form, and foliage; good growth; inclined to be shy bloomer. Use Multiflora.
- Pharissar.** Good all-round rose. Attractive color and form; growth above average; blooming good. Use Multiflora.
- President W. H. Taft.** Good growth and form; color clear; fair bloomer.
- Prince Charming.** Very attractive in color; fair growth; good blooming qualities; useful for bedding.
- Prince de Bulgarie.** Color beautiful, though variable; good form, growth, and foliage; fairly good bloomer.
- Prince E. C. d'Arenberg.** Not one of the best reds in growth and blooming qualities, but attractive as a cut-flower, and so retained.
- Principal A. H. Pirie.** Attractive color; growth high; fairly good bloomer.
- Queen of Fragrance.** Good color and fragrance; growth fair; shy bloomer.
- Radiance.** Valuable because of its all-round worth and wonderful constitution. Particularly notable for fragrance, strong growth, and very good blooming qualities. Does best on Multiflora.
- Rayon d'Or.** Pernetiana; very much same as Constance. Wonderful color; growth and bloom fair. Has tendency to kill back to ground-level. Use Multiflora.
- Red-Letter Day.** A decorative rose only. Brilliant color; good growth and bloom.
- Robert Heller.** Clear color; fairly good growth; attractive foliage; shy bloomer. Toward fall greatly resembles William R. Smith. Tested only on own roots.
- Robert Huey.** Distinct in color, hardness, and lasting qualities; especially beautiful bloom in hot weather; growth tall, not bushy; fairly good bloomer.
- Robin Hood.** Notable for excellent foliage, good stem, and lasting qualities; color quite good, not of best; growth and blooming well above average.
- Rosita Mauri.** Fairly good bloomer; tall grower; color and form good, not of best. Useful decorative.
- Rosemane Narcisse Thomas.** Wonderful color; good growth, foliage, and blooming qualities; flowers small, most attractive in bud-form.
- Safrano.** An old favorite—useful as a low decorative. Good growth and foliage; color pretty, not of best; excellent blooming qualities. Use Multiflora.
- Senateur Mascuraud.** Particularly attractive in color and form; foliage good; growth barely average; fairly good bloomer. Does best on Multiflora.
- Souv. de Gustave Prat.** Resembles Senateur Mascuraud, having stronger growth but shorter stems; attractive color; fairly good bloomer. Use Multiflora.
- Souv. de Louis Perrier.** Color distinct; form good; growth tall; rather shy bloomer.
- Souv. de Marques Louriero.** Most distinct color; growth quite good; blooming qualities fair.
- Souv. du President Carnot.** Clear and attractive color; good form and foliage; growth tall, not uniform; blooming qualities fair. Use Multiflora.
- Tipperary.** Color attractive; growth showing up nicely; fairly good bloomer. May prove useful as decorative variety.
- Ulrich Brunner.** Old favorite Hybrid Perpetual. Beautiful in spring; fragrant.
- Urania.** Attractive Hybrid Perpetual. Not a profuse bloomer, but flowers pretty well scattered throughout season.
- Viscountess Folkestone.** A popular old rose. Good growth and color; fragrant; large flowers, generally too heavy for stems; good bloomer.
- Waltham Scarlet.** Decorative; very good grower and bloomer; brilliant color.
- White Killarney.** A disappointing sport of Killarney. Nice color and growth; not so good a bloomer as parent, and has same faulty foliage.
- White Maman Cochet.** Sport of Maman Cochet, having about same general characteristics. Use Multiflora.
- William R. Smith.** Most attractive in color and form; growth and foliage good; lacks in blooming qualities; fine cutting rose. Use Multiflora.
- William Shean.** Growth variable; color not of best; fairly good amount of large blooms. Wonderful when well grown. Use Multiflora.
- Willowmere.** Most attractive and distinct in color and form; strong growth; foliage fair; inclined to be rather shy bloomer.
- Winnie Davis.** Being tested for first time on Gloire de Rosemanes stock, on which growth seems quite fair, blooms of good size and nice color.

DISCARDED

Abbe Luis G. Orozco. Fair growth and blooming qualities; not so good as other reds of same general type.

Albatross. Small and weak; winterkills.

Alexandra. Small growth; winterkills.

Alice Lemon. Attractive color, but growth and bloom poor. A collector's rose.

Amalie de Greiff. Only fair; lacks distinctiveness.

Andre Gamon. Poor growth.

Anna Marie Jacobs. Only fair; no distinguishing characteristic.

Anna Schneider. Fair in growth, but a shy bloomer.

Anne-Marie Payre. Small growth; not good in blooming qualities.

Anne Marie Soupert. Small and weak.

Annie Besant. Growth fair to good; nice color and foliage. Resembles Antoinette Rivore very much.

Annie Crawford. Fair Hybrid Perpetual, having no special merit.

Autumn Tints. Growth and blooming qualities not sufficient to warrant its being retained.

Beaute de Alba. Small; winterkills.

Beaute Lyonnaise. Growth not good; not distinct.

Bertha Gaulis. Fair; no special merit.

Betty Berkeley. Small grower; shy bloomer.

Bianca. Fair; not distinct.

Brilliant. Poor grower.

British Queen. Small growth; shy bloomer.

Burbank. Bushy growth; blooms not distinct nor attractive.

Burgermeister Christen. Fair; not so good as others of same type.

Charlotte Gillemot. Fair; not distinct.

Cherry Page. Growth fairly tall; blooms semi-double, of poor form, but lasting.

Claudius. Poor growth, blooming qualities not good.

Commandeur Jules Graveraux. Hybrid Perpetual; poor growth and foliage.

Commander Jules Grosvenor. Good strong grower, but not a bloomer.

Comtesse Felicie Hoyos. Poor growth; shy bloomer.

Comtesse Maggi Starzynska. Weak growth.

Corallina. Small growth; very little bloom.

Countess Clanwilliam. Growth and blooming fair; no special merit.

Countess of Derby. Fair growth; not a profuse bloomer.

Creme Simon. Small, weak; winterkills.

Dad Sterling. Poor grower.

Dean Hole. Fair growth; color not of best; mildews.

Defiance. Small growth; not distinct.

Desdemona. Fair growth; color and form not good.

Dr. G. Kruger. Not a strong grower; no special merit.

Duchesse de Brabant. Small growth; shy blooming qualities.

Duchesse Hedwige d'Arenberg. Poor growth; lacks distinctiveness.

Duchess of Normandy. Lacking in growth and blooming qualities.

Duisburg. Fair; not so good as other reds of same type.

Duke of Edinburgh. Hybrid Perpetual; fair growth; very few blooms; poor foliage.

Duke of Spain. Small growth; winterkilled.

Edgar M. Burnett. Poor growth; small blooms; no distinguishing characteristic.

Edu Meyer. Bushy growth; good color; single; not lasting.

Edward Bohane. Tall growth, not bushy; foliage mildews; not so good as others of same type.

Elaine. Weak growth; no special merit.

Enchantress. Small growth; winterkilled.

Erzherzog Franz Ferdinand. Fair growth and form; not a profuse bloomer.

Ethel Malcolm. Growth and bloom fair; no special merit.

Etoile Blanche. Straggly growth; poor blooming qualities.

Etoile de France. Growth and color quite good; foliage fair; form frequently balls.

Etoile de Lyon. Small growth; blooms undersized; foliage mildews.

Eugene Boulet. Fair; good growth and color; fair blooming qualities; inferior to others of same type.

Evelyn Dauntsey. Attractive; lacking in growth and blooming qualities.

Excellenz M. Schmidt Metzler. Small growth; poor bloomer.

Farben Konigin. Growth tall; few canes; color and form quite good; not a bloomer.

Florence Forrester. Poor growth; shy bloomer.

Frances C. Seton. Fairly tall growth; not a bloomer.

Frau A. Lutz. Low growth; shy bloomer.

Frau Ferdinand Paas. Small growth; poor blooming qualities.

Freda. Growth lacks bushiness; large flowers; shy bloomer.

Freiherr von Marschall. Growth good, but variable in hardiness. Form and color not of the best.

Freiherr von Floeg. Growth tall, quite bushy; fairly good bloomer; not distinct.

F. Huet. Small and weak; no special merit.

F. R. Patzer. Distinct and beautiful color; lacking in growth and blooming, even in "special bed."

G. Amedee Hammond. Small, weak growth; poor bloomer.

Gartendirektor Hartrath. Fair; good color and growth; inferior to others of same type.

Gartendirektor O. Schulze. Weak growth.

Gaston Bonnier. Small growth; no special merit.

Gaston Cazalis. Weak growth; winterkills.

General Gallieni. Fair growth; not a profuse bloomer.

General Schablikine. Weak; winterkills.

- George Dickson.** Listed as Hybrid Tea but has characteristics of Hybrid Perpetual; not so good as other roses of this class. Growth and color good; form not of best; stem not strong enough to support weight of flower; lacking in number of blooms; foliage mildews badly.
- George Laing Paul.** Small growth; poor foliage; not a bloomer.
- George Reimers.** Poor growth and bloom.
- Georgette and Valentine.** Growth not good; liable to winterkill.
- Germaine Chénault.** Fair growth only; poor foliage.
- Gloire de Chédane Guinoisseau.** Hybrid Perpetual; fair growth; foliage mildews and color purples quickly.
- Golden Meyer.** Small and weak.
- Grossherzogin Feodora von Sachsen.** Weak growth; winterkilled.
- Gruss an Dresden.** Poor growth and not a bloomer.
- Gustave Sobry.** Growth small and weak.
- Heinrich Munch.** Fair Hybrid Perpetual; not a good bloomer; inferior to other roses in this class.
- Helen Gould.** Growth small; little merit.
- Helene Wattine.** Weak growth; poor in blooming.
- Helvetia.** Small growth; not a bloomer.
- Henri Buchet.** Lacking in growth and distinctiveness.
- H. E. Richardson.** Tall growth, not bushy; not a bloomer.
- Hilda Richardson.** Growth fair; bloom small, of poor form.
- Hofgartner K. Schinke.** Growth not of best; lacks blooming qualities.
- Hofgartner Rall.** Tall growth, not bushy; no special merit.
- Honourable Edith Gifford.** Growth not good; bloom lacks distinctiveness.
- Imogen.** Color attractive; growth and blooming qualities too poor to warrant its being classed among the better roses.
- Instituteur Sirdey.** Poor growth; shy bloomer.
- Iona.** Small growth; winterkills.
- Iona Herdman.** Growth weak; winterkills.
- Isabella Sprunt.** Growth not good; no distinguishing characteristic.
- Italia.** Growth quite tall and bushy; not a bloomer; foliage mildews.
- James Coey.** Low growth; not distinct.
- Janet.** Pretty; fair in growth; lacking in blooming.
- Jeanne Philippe.** Weak; winterkills.
- Jean Noté.** A small grower and not a profuse bloomer, even in "special bed."
- Jeanne Liabaud.** Growth not good; poor bloomer.
- Joseph Lowe.** Growth not strong; no special merit.
- King of Siam.** Tall growth, not bushy; very shy bloomer.
- Königin Carola.** Color and form good; lacking in growth and blooming qualities.
- Lady Barham.** Attractive color and form; growth and blooming qualities not good.
- Lady Battersea.** Color and form good; not a bloomer; fair growth; some improvement in "special bed."
- Lady Bowater.** Fair growth; lacks distinctiveness.
- Lady Coventry.** Growth not good; no special merit.
- Lady Cromwell.** Sport of My Maryland. Lacks growth and beauty of parent.
- Lady de Bathe.** Form and color pleasing; growth and blooming not of best, even in "special bed."
- Lady Downe.** Color and form very good; growth good; blooming fair; requires "special bed" to attain these results.
- Lady Mary Ward.** Attractive in color; poor grower; shy bloomer.
- Lady Moyra Beauclerc.** Growth and blooming not sufficient to warrant its inclusion among the better roses.
- Lady Rossmore.** Weak growth.
- La Hollande.** Fair growth; no special merit.
- Leonie Lambert.** Fair grower; lacking in distinctiveness.
- Leslie Holland.** Growth and blooming qualities not good.
- Louise Lilla.** Weak growth; winterkills.
- Mme. Abel Chatenay.** Fair; good in color and growth, but superseded by better roses of same type.
- Mme. Antony Choquena.** Odd color; not a good grower or bloomer.
- Mme. C. Chambard.** Fair growth; shy bloomer.
- Mme. Charles de Luze.** Growth and blooming fair; lacks distinctiveness.
- Mme. de Watterville.** Growth fair; not distinct.
- Mme. Henri Fontaine.** Growth quite tall; bloom lacks distinctiveness.
- Mme. Hoste.** Small growth; winterkilled.
- Mme. Jules Grolez.** Growth and color not of best; good bloomer, but superseded by better roses of same type.
- Mme. Lombard.** Small plants; winterkills.
- Mme. Maurice Capron.** Weak growth.
- Mme. Maurice Rafn.** Growth very poor.
- Mme. Paul Varin Bernier.** Fair growth; not a bloomer.
- Mme. Philibert Boutigny.** Fairly good growth; lacking in blooming qualities.
- Mme. Pierre de Bouchaud.** Fair growth; no special merit.
- Mme. Rene Mahaut.** Growth fair; lacks distinctiveness.
- Mme. Theodore Delacourt.** Poor growth and blooming qualities.
- Mme. Vittoria Gagniere.** Growth small; blooms not of best.
- Mme. Wagram Comtesse de Turenne.** Fairly good; requires "special bed."
- Miss Emma Vercellone.** Small growth; no special merit.
- Miss Louise Crette.** Hybrid Perpetual; fair growth; not a bloomer.
- Miss Marguerite Guillard.** Fair Hybrid Perpetual; not so good as others.
- Miss Marie Mascaraud.** Very good in color and form; shy bloomer; fair grower; hardiness varies.

- Mlle. Yvonne Gravier. Small growth; no special merit.
- Madonna. Small growth; not distinct.
- Majestic. Very large blooms; color not of best; fair grower.
- Marcella. Beautiful; growth and blooming qualities very poor.
- Marchioness of Dufferin. Small Hybrid Perpetual; winterkilled.
- Marguerite Montavon. Small growth; no special merit.
- Maria Schmitt. Fair growth; poor form; not of best color.
- Marjorie. Growth and blooming fair; flower not distinctive.
- Marquise Jeannie de la Chataigneraye. Small plants; no special merit.
- Marquise de Mores. Small growth; winterkilled.
- Melody. Fair growth; lacking in distinctiveness.
- Meta. Small growth; winterkilled.
- Mireille. Fair; attractive on account of its clear color; inferior to similar varieties.
- Miss Marion Manifold. Spreading growth; poor color; shy bloomer.
- Miss Marston. Bushy growth; not a profuse bloomer.
- Molly Sharman Crawford. Good color; only fair in other qualities.
- Mrs. Archie Gray. Small plants; winterkilled.
- Mrs. Arthur E. E. Coxhead. Growth good; fair form; shy bloomer; not distinct.
- Mrs. Arthur Munt. Small plants; winterkilled.
- Mrs. Campbell Hall. Small growth; winterkilled.
- Mrs. Charles E. Allan. Attractive; fair growth; shy bloomer, in "special bed."
- Mrs. Charles Hunter. Fair in most characteristics; not distinct.
- Mrs. Charles Russell. Color not of best; form and growth fair; very shy bloomer.
- Mrs. Cornwallis West. Rather tall growth; lacks bushiness; no special merit.
- Mrs. David Baillie. Color and blooming good; growth low; blooms pretty in spring, small in summer and fall.
- Mrs. Edward Clayton. Small growth; winterkilled.
- Mrs. E. J. Holland. Poor in growth and blooming.
- Mrs. E. Townshend. Fine bloomer, of good color, form and growth; discarded on account of susceptibility to mildew.
- Mrs. Foley Hobbs. Good in color and growth; blooming below the average.
- Mrs. Frank Workman. Weak grower; winterkills.
- Mrs. George Norwood. Small plants; variable in hardiness; no special merit.
- Mrs. Gordon Sloane. Fair growth; not a bloomer.
- Mrs. Henry Horne. Growth fair; no special merit.
- Mrs. Hubert Taylor. Good grower and bloomer; color fair; foliage susceptible to mildew. Without these faults would be a good fall decorative.
- Mrs. James Lynas. Growth and foliage fair; not a bloomer.
- Mrs. J. P. Morgan. Weak growth; winterkilled.
- Mrs. Leonard Petrie. Color good; growth fair; hardiness varies; shy bloomer.
- Mrs. Longworth. Good growth; not a bloomer. Merely an oddity.
- Mrs. Maud Dawson. Low growth; no special merit.
- Mrs. Maynard Sinton. Poor growth; not a bloomer.
- Mrs. Mona Hunting. Growth and foliage poor.
- Mrs. Moorefield Storey. Weak growth; winterkills.
- Mrs. Myles Kennedy. Fair growth; very shy bloomer.
- Mrs. Philip le Cornu. Growth and blooming not good.
- Mrs. Richard Draper. Poor in growth, foliage, and blooming.
- Mrs. R. G. Sharman Crawford. Fair Hybrid Perpetual. Foliage inclined to mildew; general characteristics not so good as other roses in this class.
- Mrs. Sam Ross. Growth, foliage, and blooming qualities not good.
- Mrs. S. T. Wright. Sport of Harry Kirk. Good color; lacks in growth and blooming.
- Mrs. Theodore Roosevelt. Growth and blooming not of best.
- Mrs. Wakefield Christie Miller. Growth fairly good; lacks in blooming; color and form not of best.
- Mrs. Wallace H. Rowe. Low growth; poor stems; not a bloomer.
- Mrs. Walter Easlea. Fairly good in growth and bloom when grown in "special bed."
- Mrs. Wilford Lloyd. Weak; winterkills.
- Mrs. William Cook. Small; no special merit.
- Mrs. William Milner. Growth and blooming not good.
- Muriel Dickson. Weak growth; winterkills.
- Naarden. Small growth; winterkilled.
- Odette Perdrille. Good color; fair growth and blooming qualities.
- Okomomierat Echtermeyer. Lacking in growth and blooming.
- Oracenta. Fair growth; no special merit.
- Parseval. Tall growth; not distinct.
- Peggy. Fair growth; shy bloomer.
- Perle des Jardins. Growth small; superseded by better roses of same type.
- Perle des Jaunes. Fair growth; no special distinction.
- Perle de Lyon. Small growth; superseded by better roses of same type.
- Portia. Fair growth only; not a bloomer.
- Prefet Montell. Growth small; poor in blooming.
- Primerose. Poor growth and foliage; shy bloomer.
- Prince Mohamed Ali Pacha. Fairly good in all characteristics, but inferior to others of same type.
- Prince Rupert. Low growth; poor foliage; no special merit.
- Princess Juliana. Growth not good, having no distinctiveness.

Princess Marie Scherbatoff. Growth not of best; bloom attractive only in bud.

Princesse Stephanie. Growth fair only; not a bloomer.

Queen Mary. Remarkable color; fair in growth, form, bloom; hardiness varies.

Queen of Spain. Growth small; very shy in blooming.

Red Admiral. Good color and growth; fair bloomer; form not of best, not so satisfactory as other reds of same type.

Reine Mère d'Italie. Small in growth; poor in color.

Rena Robbins. Growth fair only; shy bloomer.

Rhea Reid. Small plants.

Richmond. Brilliant color; fairly good growth; blooming qualities good on Multiflora; not dependable; varies greatly; seldom grown well.

Robert Duncan. Fair Hybrid Perpetual. Blooms not of the best color; rose not so good as others in this class.

Rose Clop. Growth fair; no special merit.

Roseclane. Small plants; poor foliage.

Sallie. Growth fair; blooming qualities not good.

Sarah Bernhardt. Growth quite good; blooms semi-double; good decorative if foliage were less susceptible to mildew.

Souv. d'Emile Floquet. Growth and color not of best.

Souv. de Ferdinand Beaumez. Fair growth and foliage; color not lasting.

Souv. de Mme. E. Mulnard. Lacking in growth and blooming qualities.

Souv. de Marie Perdiolle. Growth, foliage, and form not of best; color quite clear, not distinct.

Souv. de Perigueux. Growth small; shy bloomer.

Souv. of Henry Graham. Growth and foliage fair; color not distinct.

Sunburst. Beautiful shade at best, but color varies greatly; growth fair; blooming shy; hardiness not dependable.

Sunrise. Pretty color; lacks in growth.

Sunset. Weak growth; winterkills.

Sybil. Fair growth and blooms; not so good as other roses of same type.

Totote Geles. Growth and blooming below average; lacks distinctiveness.

Vanessa. Growth fair; no special merit.

Vanity. Growth not particularly good; not a bloomer.

Verna Mackay. Pretty; growth and blooming qualities poor; cannot be considered except as a collector's rose.

Viscount Carlou. Growth fair; lacks distinctiveness.

Viscountess Enfield. Attractive; fair bloomer; extremely difficult to grow, even on Multiflora; poor foliage.

Walter Speed. Poor growth; no special merit.

Wellesley. Fair; inferior to similar roses.

Wilhelm Frank. Poor in growth, foliage, and blooming.

William Cooper. Foliage and growth not good; poor blooms in fall.

NEW ROSES

Of the new roses which have been tried, the following show the best results so far. It will be understood that these varieties have not yet been sufficiently tested to warrant their being recommended as all-round roses.

Aladdin. Good foliage; nice color and growth. Promising.

Cree. Good color and growth; large, attractive blooms.

Clara Watson. Fair growth and foliage; pretty color.

Clarice Goodacre. Growth, form, and color good. Tested by Dr. Huey as a seedling for some time and considered by him a valuable variety. Promising.

Clytemnestra. Good foliage; strong growth; blooms small, attractive color, in clusters. Adaptable as a pillar rose.

Colcestris. Fair growth and bloom. A pillar rose.

Ethel Dickson. Growth fair; blooms attractive in color and form.

Flame of Fire. Color distinct and attractive; growth small.

Francis Scott Key. Growth small; fairly good blooming qualities.

Golden Spray. Growth fair; good foliage; bud attractive in color and form.

H. D. M. Barton. Good color and fair growth for new plants.

Henriette. Wonderful and distinct color; growth small.

Herzog Friedrich II von Anhalt. Nice growth and foliage; dainty, attractive.

Honorable Mrs. R. G. Grosvenor. Bloom attractive. Good foliage and fair growth.

Improved Rainbow. Fair growth and good foliage; distinct color.

Isobel. A single rose of remarkable color. Fair growth.

Joanna Bridge. Most promising of the new roses. Good in growth, foliage, and color of flower; shows signs of becoming a valuable variety.

Lilian Moore. Small plants; attractive in color and form.

Los Angeles. Pretty; color distinct, clear.

Mme. Lucien Baltet. Distinct and beautiful color.

Mme. Valerie Beaumez. Good growth for young plants.

Mlle. Argentine Gramon. Fair growth; color clear and attractive.

Marquise d'Hautpoul. Growth fair; nice color.

Miss Stewart Clark. Color attractive and distinct; good form; fair growth.

Mr. P. L. Baudet. Growth fair; good color.

Mrs. Alfred Tate. Beautiful; growth fair.

Mrs. Dunlop Best. Very promising variety; most distinct and attractive in color of flower; good in growth for new plants.

Mrs. F. F. Thompson. Growth showing up well for first season.

Mrs. George Roupell. Low, rather bushy growth; dainty, attractive, semi-double flowers.

Mrs. John Foster. Growth rather tall; inclined to be shy bloomer.

Mrs. Marshall Field. Fair in growth and blooming for new plants; fragrant.

Panama. Attractive color. Well spoken of and has done well in Baltimore.

Red Radiance. Promising rose of good color. So far has not shown the wonderful growth of the mother plant.

CLIMBING SECTION

In this section only the best varieties, or those which have special merit or distinction in some particular characteristic, have been retained.

The Climbing Hybrid Teas have been disappointing in their lack of continuous bloom, even when well grown and given the best of winter protection. A great many Teas and Noisettes, if carefully protected with waterproof building-paper and earth, may be brought through the winter safely, and some of these bloom more freely than the Hybrid Teas.

In addition to those listed, a number of new climbers are being retained for a further test, but no conclusive record can yet be given as to their merits.

RETAINED

Alberic Barbier. Attractive; resembles *Aviateur Bleriot*; growth quite good.

Alexandre Girault. Growth fair; color distinct.

Alister Stella Gray. Good in South; being given a further test for this climate; requires winter protection.

America. Fairly good—resembles *Evergreen Gem* and *American Pillar*, only smaller; occasionally blooms in fall.

American Pillar. Fine growth; attractive blooms; good foliage.

Antoinette Massard. Fair growth and blooms; requires winter protection.

Ards Rover. Fine growth; excellent bloomer in spring; fragrant.

Auguste Roussel. Good growth and foliage; large blooms; nice color; requires winter protection.

Aviateur Bleriot. Fair to good growth; blooms attractive—best in bud-form; foliage lasts quite well.

Babette. Nice growth; good color; fair foliage.

Bar-le-Duc. Growth fair; free bloomer, sometimes blooming a second time.

Beaute de l'Europe. Small growth; attractive blooms scattered throughout season; requires winter protection.

Belle Lyonnaise. Fair growth; pretty blooms; needs winter protection.

Blush Rambler. Fair growth; good bloomer.

Bouquet Rose. Fair growth; blooms well.

Brairwick Charm. Growth fair; attractive color; liable to winterkill.

Carmine Pillar. Fair growth; color very much like *Hiawatha*; does better if given winter protection.

Caroubier. Vigorous growth; flowers attractive, not all in bloom at once; resembles *Eisenschach* in color; occasionally gives a little fall bloom.

Ceres. Fair growth; scattered blooms throughout season; better results if given winter protection.

Christine Wright. Mme. Caroline Testout X *Wichuraiana* seedling. Good growth and bloom; color and form most attractive; few scattering flowers in autumn.

Cinderella. Fair grower and bloomer; flowers do not all come at once.

Climbing Cedie Brunner. Small, perfectly formed blooms; growth quite good; if three-year-old plants are secured and given heavy winter protection, will give satisfactory results in blooming.

Climbing Gruss an Teplitz. During its third season has shown vigorous growth and wonderful amount of spring bloom of good color and fragrance; only an occasional bloom thereafter.

Climbing Hermosa. Good grower; not a profuse bloomer; better if protected.

Climbing Kaiserin Augusta Victoria. Fairly good growth; very beautiful flowers; one of the best bloomers among the Hybrid Teas, although giving only scattering blooms throughout season; requires winter protection.

Climbing Lady Ashtown. Growth and blooming fair; good color; foliage tends to mildew; needs winter protection.

Climbing Mme. Melanie Soupert. Growth fairly good; wonderful flowers of perfect form; gives more bloom than majority of Hybrid Teas; protect in winter.

Climbing Nabonnand. Small growth; needs winter protection.

Climbing Orleans Rose. Fair grower and bloomer; needs winter protection.

Climbing White Maman Cochet. Small grower; blooms attractive, but shy; requires winter protection.

- Cordelia.** Rather low bushy growth; attractive blooms, but not perpetual flowering; inclined to winterkill; give protection.
- Cocquina.** Growth and blooming quite good.
- Cupid.** Small growth; single blooms; attractive color, fading quickly; needs winter protection.
- Danæ.** Growth not especially tall but bushy; blooms in clusters, scattered throughout season, on wood of previous year; requires winter protection.
- Dawn.** Fair growth; blooms semi-double, of nice color; better if protected.
- Debutante.** Rather straggly growth; free bloomer, occasional blooms in fall.
- Delight.** Strong growth; good foliage; blooms almost same color as *Hiawatha* and *Eisenach*.
- Dorothy Perkins.** Fine growth and blooming qualities; foliage lost quite early.
- Dr. W. Van Fleet.** Good growth and foliage; beautiful flowers of good form; blooms well in spring, an occasional bloom thereafter.
- Eisenach.** Good growth; fair foliage; blooms resemble *Hiawatha*—a trifle smaller and showing more copper; comes into bloom earlier than most varieties, with all flowers coming at once.
- Eliza Robichon.** Especially good for covering banks; holds foliage well; pretty color.
- Evergreen Gem.** Good growth and blooming qualities; resembles *American Pillar*.
- Excelsa.** Best red bloomer of class; a *Crimson Rambler* with good foliage which lasts well; good growth.
- Felleberg.** Growth and blooms quite good; scattering blooms after spring; needs winter protection.
- Flame.** Growth fair, somewhat uneven; free bloomer; foliage susceptible to mildew.
- Fortune's Yellow.** Small grower; needs heavy winter protection.
- Francois Crousse.** Small growth; fair foliage; color attractive, tending to fade quickly; an occasional bloom during season; needs winter protection.
- Francois Fouchard.** Small grower; bloom attractive, somewhat shy.
- Francois Juranville.** Growth and foliage good; flowers pretty, not abundant.
- Francois Poisson.** Growth and foliage fair; attractive color; blooms quite well.
- Frau Berta Gurtler.** Growth good, but uneven; somewhat lacking in blooming qualities.
- Fraulein Octavia Hesse.** Good growth and foliage; bloom attractive, not profuse.
- Furstin Pless.** Although listed as a Hybrid Tea, might well be classed as a pillar rose. Blooms most attractive, of good size, valuable for its good growth and continuous bloom; better results if given winter protection.
- Gaktea.** Fair growth; scattering blooms throughout season; give protection.
- Gardenia.** Good foliage; fairly good growth; somewhat lacking in number of canes; color pretty—most attractive in bud.
- Garisenda.** Good growth and blooming qualities; large, attractive flowers.
- Gloire de Dijon.** Most distinct; gives more flowers than any Hybrid Tea sport, being a continuous bloomer; growth is good; most hardy of Climbing Teas, but should be budded on Multiflora, grown on a south wall, and be given protection.
- Golden Rambler.** Small growth; good color; needs winter protection.
- Hackeburg.** Fair growth and bloom; foliage light, but attractive.
- Helen Gould.** Growth and foliage quite good; inclined to be a shy bloomer; needs winter protection.
- Hiawatha.** Growth tall, but straggly; good bloomer; loses foliage early.
- Iceberg.** Growth small; blooms after spring.
- Ida Clemm.** Growth and bloom quite good.
- Jean Girin.** Tall, rather straggly growth; foliage lasts quite well; quite a good bloomer—on order of *Dorothy Perkins*. With *Admiral Ward*, on Long Island, has second blooming period of approximately half the number of spring flowers.
- Jean Guichard.** Fair growth; bloom very distinct.
- Joseph Billard.** Growth fairly good; blooms large, single; nice color.
- Jkvr. D. Baroness von Ittersum.** Wonderful growth and blooming qualities.
- Klondyke.** Growth fair; bloom very much on the order of *Gardenia*; good foliage.
- Lady Gay.** Vigorous growth; same color as *Dorothy Perkins*, not quite so profuse.
- La Flamme.** Strong grower; good blooming qualities; color much like *Eisenach*, blooming period a trifle longer.
- La Guirlande.** Fair growth and bloom.
- Lemon Pillar.** Wonderful blooms—large and of fine form; fair growth; rather shy bloomer; needs winter protection.
- Lemon Queen.** Blooms same type as *Lemon Pillar*—not so good in form; fair growth; occasional bloom after spring; needs winter protection.
- L'Idéal.** Most distinct and attractive color; low, bushy growth; blooms over a considerable season; needs winter protection.
- Longworth Rambler.** Growth rather small; scattered blooms after spring; requires winter protection.
- Lucette.** Growth fair; quite good in blooming qualities.
- Lucile.** Good growth; color about same as *Debutante*, but held better.
- Lyon Rambler.** Growth not of best—low and bushy; fair in blooming.
- Mme. Auguste Nonin.** Good growth and foliage; fair amount of bloom.
- Mme. Fourreau.** Fair growth; large, well-formed blooms; an occasional flower after spring; requires winter protection.
- Mme. Hector Leulliot.** Fair grower; gives scattering blooms of wonderful color throughout entire season; needs heavy winter protection.
- Mme. Jules Graveriaux.** Nice growth; attractive blooms scattered throughout season; needs winter protection.

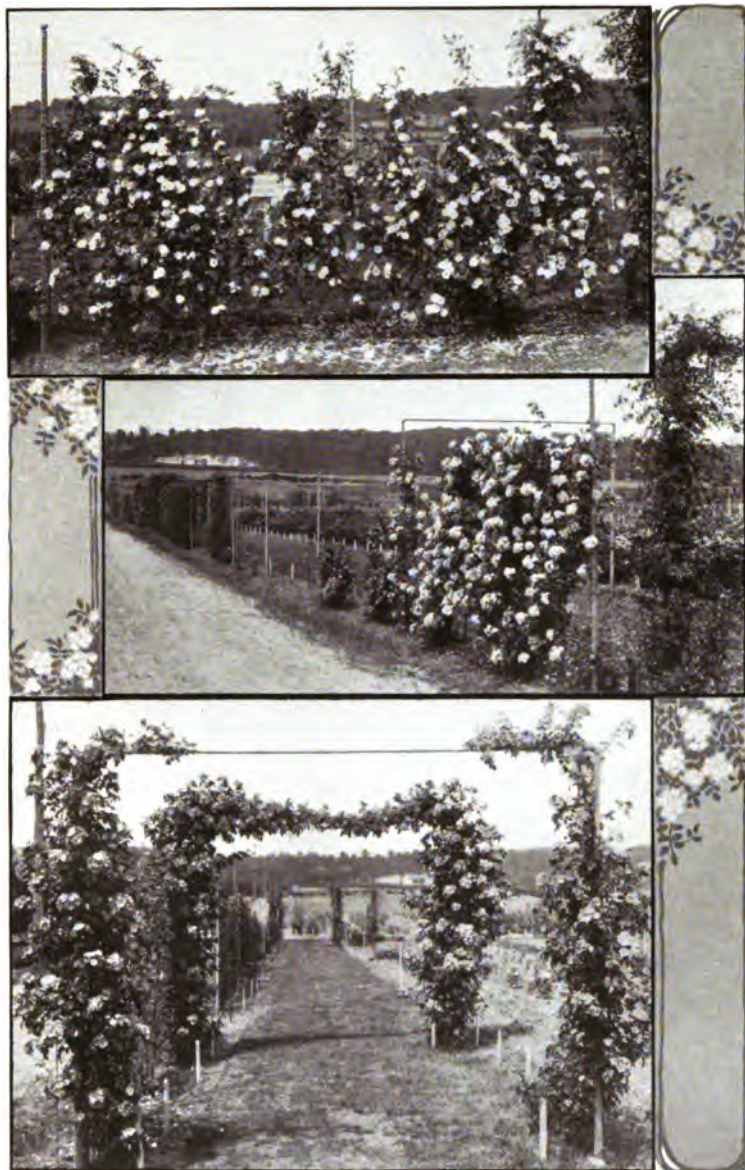


PLATE IX. Climbing roses in the National Rose Test-Garden, Arlington, Va.
(To show iron posts and special training method; see page 90)

Mary Lovett. Good growth and blooming qualities; attractive flowers—more double than Silver Moon; loses foliage early.

Mary Washington. Growth small; bloom quite attractive; needs winter protection.

Meteor. Fair growth; bloom not of best form; requires winter protection.

Millicent. Fair growth and blooming qualities.

Minnehaha. Much like Dorothy Perkins, perhaps lighter in bud; vigorous growth; wonderful amount of bloom.

Miss G. Messman. Rather low, bushy growth; fair bloomer—occasionally some fall bloom; needs winter protection.

Miss Helyett. Bloom large and double; color attractive and holds well; good growth; blooming qualities during the second year rather shy, but may improve, as rose has been recommended highly.

Mohrenkoning. Small growth; large double blooms of nice color; needs winter protection.

Moonlight. Bushy growth, not especially tall; blooms in clusters, scattered throughout the season, on new wood; requires winter protection.

Morgenroth. Showing only small growth so far; to be tested further.

Mrs. F. W. Flight. Growth rather small; blooms of good color fading quickly.

Newport Fairy. Vigorous growth; good amount of bloom; not among first to flower in spring.

Noella Nabonnand. Fair growth; blooms large and semi-double; color good, tending to blue somewhat; needs protection.

Paul Transon. Good in growth, foliage and blooming qualities.

Petit Louis. Growth and foliage quite good; blooming fair.

Pillar of Gold. Small growth; rather shy bloomer; requires winter protection.

Prairie Queen. Strong growth; good foliage; quite a bloomer—comes in later than the majority of varieties.

Psyche. Seedling of Crimson Rambler; good growth, foliage and bloom.

Purity. Rather low, bushy growth; good foliage; blooms attractive; may improve when better established.

Queen of the Belgians. Rather straggly growth; fair blooms.

Reine Marie Henriette. Growth quite good; blooms well in spring, with occasional blooms thereafter; good color; fragrant; needs winter protection.

Reine Olga Wurtemberg. Nice growth and foliage; large attractive blooms; requires winter protection.

Rubin. Foliage and growth good; blooms attractive and last well.

Ruby Queen. Fair in growth and bloom.

Shalimar. Growth good; not a profuse bloomer; sometimes gives an occasional bloom in fall.

Shower of Gold. Fair growth; blooms distinct; needs winter protection.

Silver Moon. Very strong growth; good foliage; splendid blooming qualities; blooms large and attractive.

Sodenia. Pretty good in growth and bloom.

Steil Rambler. Good bloomer; fairly good grower; poor foliage; occasional bloom after spring.

Tausendsachen. Good grower and bloomer; fairly good foliage.

Tea Rambler. Growth not of best; profuse bloomer; most attractive.

Trier. Fair growth; free bloomer—occasionally blooming a little in fall.

Troubadour. Fine growth and foliage; profuse bloomer; resembles Excelsa in color.

Una. Small grower; quite shy bloomer; requires winter protection.

Veilchenblau. Vigorous growth; good blooming qualities; odd in color; lower foliage lost early.

Waltham Climber. Growth small; blooming qualities not of best; protect.

Waltham Rambler. Fair growth; free bloomer.

Wedding Bells. Good in growth, foliage, and blooming.

White Rambler. Fair growth; mass of bloom all at once—attractive.

William Allen Richardson. Color distinct; fair growth—inclined to have blind wood; requires winter protection.

Winter Cheer. Fair growth; scattering blooms throughout season; better results if protected.

Zephyrine Drouhin. Fair growth; beautiful color; good form; very occasional bloom in summer and fall; needs protection.

DISCARDED

Amethyste. Strong grower; poor color; not lasting.

Andenken an Breslau. Growth quite good; foliage sparse; bloom of no special merit.

Andrianna. Fair growth; all bloom at once, not lasting.

Ariel. Fair growth; bloom not lasting.

Arndt. Small growth; winterkilled.

Australian Beauty. Poor growth.

Baltimore Belle. Low growth; foliage fair; blooms not especially attractive.

Birdie Blye. Poor growth.

Blanche Frowein. Small growth; foliage not of best; blooms not distinct.

Buttercup. Poor growth; bloom goes fast.

Calypso. Small growth; winterkilled.

Charles Lefebvre. Fair growth; fragrant blooms—fade quickly.

Climbing American Beauty. Good growth; splendid amount of spring bloom; flowers fade quickly; foliage lost early.

Climbing Belle Siebrecht. Fair to good growth; not a good bloomer.

Climbing Captain Christy. Poor grower; shy bloomer.

Climbing Killarney. Foliage mildews badly; not sufficient bloom to warrant its being retained.

Climbing Mme. Caroline Testout. Good blooms when you get them; not one of the best growers; susceptible to mildew.
 Climbing Mme. Jules Grolez. Growth fair; shy bloomer.
 Climbing Marquise de Sinety. Small growth; winterkilled.
 Climbing Mrs. W. H. Cutbush. Fair growth; poor foliage; not a bloomer.
 Climbing Richmond. Fairly good growth; sparse foliage; bloom not profuse.
 Climbing Souv. de la Malmaison. Foliage sparse and poor; growth fair.
 Clotilde Soupert. Poor growth; blooms not of good form.
 Coquette des Blanches. Fair growth; blooms do not open well.
 Corna. Small growth; winterkilled.
 Dawson. Growth fair; no special merit.
 Ernest Grandpierre. Weak growth; not distinct.
 Excellence Kuntze. Poor growth and foliage.
 Francois Guillot. Small growth; blooms large and double.
 Frau von Brauer. Fair growth; blooms inferior to others of same type.
 Gaston Chandon. Poor growth; blooms of no special merit.
 Geisha. Fair growth; bloom fades quickly.
 Helen Granger. Good growth; shy bloomer—quite a lot of blind wood.
 Jacques Kneppers. Small growth; no special merit.
 Kommerzienrat W. Rautenstrauch. Small growth; not distinct.
 Lady Blanche. Tall growth, but straggly; fair amount of bloom.
 Lady Godiva. Good growth; not a bloomer.

Leuchstern. Small, bushy growth; all blooms at once, fading quickly.
 Mme. Antoine Charvet. Small growth; no special merit.
 Mme. Julien Petit. Slender growth; blooms large, of poor form.
 Mme. Rose Romarin. Small growth; winterkilled.
 Magda Wichmes. Small growth; winterkilled.
 Manda's Triumph. Straggly growth; poor foliage; bloom not attractive.
 Mosella. Weak growth.
 Mrs. M. E. Walsh. Fair growth; not a profuse bloomer.
 Oriflame. Small; bloom pretty, but shy.
 Paradise. Growth fair; not a bloomer.
 Parkierde. Growth not especially good; blooms fade quickly.
 Petite Jeanne. Poor growth and foliage; no special merit.
 President Blondeau. Vigorous grower; very late bloomer; lacking in distinctiveness.
 Reine Victoria. Low, bushy growth; poorly formed blooms; color not of best.
 Roby. Fair growth; shy bloomer.
 Rosemary. Small growth; winterkilled.
 Rowena. Fairly good growth; foliage not of best; blooms inclined to fade quickly.
 Sheila Wilson. Poor growth; not a profuse bloomer nor particularly attractive.
 Snowdrift. Small growth; very few blooms.
 Souv. of Wootton. Not a large grower; fair amount of bloom in spring only; fragrant.
 Starlight. Weak grower; winterkilled.
 Sweetheart. Small grower; shy bloomer.
 Sweet Lavender. Poor growth and foliage; blooms not distinct.
 Wallflower. Fair growth; blooms of no special merit.

NOTE BY THE EDITOR

Since the arrangement was made to secure for the Annual these unique and invaluable records, by all means the most impartial, critical and detailed observations on roses yet made anywhere, the author has taken service with the United States as an aviator, a pursuit in which he is as able as in rose-growing. Captain George C. Thomas, Jr., is flying in France for the cause of liberty and humanity and is in consequence a representative on the fighting line of the American Rose Society.

Captain Thomas has arranged to have his rose-work continued and the observations maintained. His notable breeding efforts are, however, intermitted until peace shall again reign.

The National Rose Test-Garden in 1917

By F. L. MULFORD

Department of Agriculture, Washington, D. C.

THE National Rose Test-Garden can report continued progress for the year. One hundred and twelve varieties were received from seventeen firms, as follows:

American Nursery Co.'s F. & F. Nurseries; Biltmore Nursery Co.; Ed. W. Breed; Brown Bros.; John Cook; D. N. Coolidge; California Rose Company; Crete Nurseries; The Dingee & Conard Company; Felix and Dykhuis; S. G. Harris; Harrisons' Nurseries; J. E. Jackson; Henry Kohankie; J. T. Lovett; The Wm. H. Moon Company; United States Government, through E. M. Byrnes. Many new varieties were contained in this list, thirty-five being unnamed seedlings, part from this country and part from Holland. It is hoped more new roses will be sent in during 1918.

During the past season, semi-weekly observations of the roses have been continued. The varieties mentioned hereafter have done sufficiently well in the garden to warrant making a report on their behavior.* Many others have done so poorly that further trial has seemed desirable before making a report, as their failure may have been due to conditions rather than to weaknesses inherent in the variety.

The endeavor has been to give culture similar to that which would be given by an ordinarily careful householder rather than that of an expert rosarian. The roses have been given a good winter mulch of manure, but no hilling up has been done. Spraying has not been practised, as insects have not been troublesome, and it has been felt that a reading on the extent of disease-resistance was valuable.

If you miss the names of any varieties from this list, kindly offer to supply them, and if we have not already received them from other parties we shall certainly accept them most gladly. In the descriptions, the terms used and the order of their value are:

*Because of the pressure upon the space of the Annual, it has been found necessary to omit, with Mr. Mulford's consent, the report on all varieties save the so-called ever-blooming classes.—EDITOR.

Habit.—Tall; medium height; low-growing. Upright; open or compact, spreading.

Growth.—Vigorous; moderate; weak.

Hardiness.—Hardy; winterkills, some, badly.

Foliage.—Plentiful; sufficient; sparse.

Bloom.—Profuse; abundant; free; moderate; sparse. Continuous; intermittent; occasional.

TEA AND HYBRID TEA ROSES

With these a plant two and one-half feet high is considered tall, and anything under one and one-half feet is low-growing.

In the notes there has not been a distinction made between the midsummer drop of foliage that occurs in those varieties in which Hybrid Perpetual or Bengal propensities predominate and any loss of foliage due to black-spot, unless no black-spot at all has been observed on the plant. The practical difference as to whether the foliage drops from black-spot or from an inherent tendency to lose leaves from summer heat and check is nothing to the average grower. The fact of holding or losing foliage under ordinary conditions is the main question. The farther south the plants are grown, the greater the importance of this consideration. (In this list, "G" signifies grafted and "O.R." own roots. The asterisk (*) indicates varieties which proved most satisfactory.)

Alsterufer. O.R. Rather low, moderately spreading; growth moderate, rather hardy; foliage barely sufficient; bloom free, continuous.

Ambrosia. O.R. Low, moderately spreading; growth moderate, reasonably hardy; foliage sufficient, free from disease; bloom sparse in June and August, moderate in July.

Arthur R. Goodwin. G. Rather low, spreading; foliage sufficient, free from disease; bloom moderate and continuous.

Beauté Inconstante. O.R. Low, spreading, not vigorous, reasonably hardy; foliage plentiful, healthy; bloom moderate, continuous.

Bessie Brown. O.R. Tall, almost climbing, vigorous, hardy; foliage plentiful, black-spots slightly in midsummer; bloom moderate, continuous, slight break in midsummer.

Betty. G. Low, rather upright growth, moderately vigorous, hardy; foliage sufficient, black-spots slightly in midsummer; bloom moderate, continuous, slight break in midsummer.

Blumenschmidt. Low, compact, hardy; foliage plentiful, healthy; bloom plentiful, continuous.

Bon Silene. O.R. Low-growing, spreading, winterkills some; foliage sufficient, healthy; bloom moderate, continuous.

Bride. O.R. Weak-growing, tender.

Bridesmaid. O.R. Weak-growing, tender.

British Queen. G. Low-growing, compact, apparently hardy; foliage almost sufficient, black-spots slightly in midsummer; bloom moderate, continuous.

Catherine Mermet. Low, moderately spreading, not vigorous; foliage sufficient, healthy; bloom moderate three-

fourths of time, more in July and August than later.

Chateau de Clos Vougeot. G. Low, moderately spreading, not vigorous, apparently hardy; foliage almost sufficient, healthy; bloom moderate three-fourths of time, distributed well through season.

***Col. R. S. Williamson.** O.R. Medium in height and spread, hardy; foliage sufficient, healthy; bloom free except in late summer, continues through season.

Corallina. O.R. Medium height, spreading, not vigorous; foliage plentiful, healthy; bloom moderate three-fourths of time, distributed well through season.

Countess of Gosford. G. Medium height, compact, vigorous; foliage plentiful, very little black-spot; bloom plentiful till midsummer, moderate later, continuous.

David Pradel. O.R. Low, spreading, winterkills some; foliage plentiful, apparently weakened by hot weather, not subject to disease; bloom plentiful in June, moderate through rest of season.

Dean Hole. O.R. Low, weak grower; foliage sufficient; bloom sparse, well scattered through season.

Defiance. O.R. Moderate height; foliage sufficient, free from disease; bloom moderate, about half the time.

Dora. O.R. Small, winterkills badly; foliage sufficient, healthy; bloom sparse, occasional.

***Dorothy Page Roberts.** G. Tall, rather spreading, vigorous; foliage sufficient to plentiful, black-spots and mildews slightly; bloom moderate, almost continuous.

Duchesse de Brabant. O.R. Moderately tall, compact, vigorous, hardy; foliage plentiful, healthy; bloom free, continuous.

- Duchess of Albany** (Red La France). O.R. Low, moderate growth, hardy; foliage sufficient to plentiful, healthy; bloom moderate, continuous.
- Duchess of Westminster**. G. Medium height, compact, winterkills some; foliage sufficient to plentiful, mildews moderately; bloom free early in summer, moderate later, almost continuous.
- Earl of Warwick**. G. Low, compact, not strong-growing nor very hardy; foliage sufficient, healthy; bloom moderate, almost continuous.
- Etoile de France**. Low-growing, weak; foliage sufficient, black-spots slightly; bloom sparse, intermittent.
- Etoile de Lyon**. Very low, compact, not vigorous; foliage sufficient, healthy; bloom sparse, mostly early and late.
- Farben Konigin**. G. Moderately tall, compact, hardy; foliage sufficient, healthy; bloom free, continuous.
- Florence E. Coultwaite**. O.R. Very small, compact, weak grower, tender; foliage sufficient, healthy; bloom sparse, occasional.
- *Frances E. Willard**. O.R. Tall, almost climbing, many strong shoots; foliage plentiful, healthy; bloom free, almost continuous.
- *Francisca Kruger**. O.R. Moderate height, compact, hardy; foliage plentiful, healthy; bloom profuse and continuous till September, after that liberal and continuous.
- Franz Deegan**. G. Very small, weak; foliage sufficient to sparse, especially in late summer; bloom sparse, occasional, best late in season.
- General MacArthur**. O.R. Low, spreading, compact, weak; foliage plentiful, healthy; bloom moderate, intermittent during season.
- General-Superior Arnold Janesen**. G. Almost tall, rather spreading, hardy; foliage plentiful, little black-spot; bloom free in summer, intermittent during season.
- George C. Waud**. G. Moderate height, rather compact, not vigorous; foliage sufficient, black-spots slightly; bloom moderate, intermittent.
- Gorgeous**. Low, moderately compact, hardy; foliage very abundant, mildews slightly; bloom moderate, intermittent.
- *Grace Molyneux**. G. Tall, compact, hardy, vigorous; foliage sufficient, mildews somewhat; bloom free, continuous.
- Grossherzog Friedrich**. G. Medium height, rather compact, hardy; foliage plentiful, black-spots slightly; bloom moderate, almost continuous.
- *Gruss an Teplitz**. O.R. Moderate height, rather stocky, vigorous, hardy; foliage very abundant, black-spots slightly; bloom profuse till midsummer, free balance of season, continuous.
- *Gustav Gruenerwald**. G. Moderate height, compact, vigorous, hardy; foliage plentiful, black-spots slightly; bloom almost free, continuous.
- H. F. Ellers**. Medium in height and compactness, reasonably vigorous, hardy; foliage sufficient, black-spots slightly; bloom moderate, intermittent first of season, continuous later.
- H. V. Machin**. G. Medium in height and compactness, reasonably hardy; foliage sufficient, black-spots very slightly; bloom sparse, occasional.
- Hector Mackenzie**. O.R. Low-growing, moderately compact, winterkills some; foliage sufficient to sparse, healthy; bloom moderate, intermittent.
- Helen Good**. O.R. Moderate height, rather compact; foliage sufficient to plentiful, healthy; bloom moderate, intermittent in flower three-fourths the time.
- Helen Gould**. O.R. Moderate height, compact, hardy; foliage sufficient to plentiful, black-spots somewhat; bloom free most of time, almost continuous.
- Henry M. Stanley**. Low-growing, rather compact, reasonably hardy; foliage plentiful, healthy; bloom moderate, intermittent, in flower about one-half the time, scattered well through season.
- Hoosier Beauty**. O.R. Low, compact; foliage plentiful, healthy; being transplanted fall, 1916, did not begin blooming till late, but bloomed continuously after beginning.
- *Isabella Sprunt**. O.R. Moderately tall, compact, hardy; foliage plentiful, healthy; bloom free, continuous.
- Jacques Porcher**. G. Bushy, moderately tall, compact, vigorous, hardy; foliage very plentiful, black-spots slightly; bloom moderate, intermittent.
- Joseph Hill**. G. Bushy, low-growing, moderately compact, reasonably hardy; foliage sufficient, black-spots slightly; bloom moderate to free, continuous, except little while in midsummer.
- *Kaiserin Augusta Victoria**. G. Bushy, tall, moderately compact, winterkills some; foliage plentiful, black-spots; bloom free most of time, almost continuous.
- *Killarney**. O.R. Tall, bushy, hardy; foliage plentiful, black-spots and mildews slightly; bloom free, almost continuous.
- *Killarney Queen**. O.R. Tall, compact, free-growing, hardy; foliage sufficient, black-spots; bloom free, almost continuous.
- *Konigin Carola**. G. Tall, compact, free-growing, hardy; foliage plentiful, black-spots; bloom free, almost continuous.
- La France**. O.R. Medium height, compact, moderate in growth and hardiness; foliage sufficient to plentiful, black-spots slightly; bloom moderate, almost continuous.
- *La Tosca**. O.R. Tall, compact, vigorous, hardy; foliage plentiful, black-spots slightly; bloom abundant, continuous.
- *Lady Alice Stanley**. G. Height and compactness medium, vigorous, hardy; foliage plentiful, black-spots slightly; bloom free, almost continuous.

- Lady Ann Beredell.** G. Low-growing, moderately compact, hardy; foliage sufficient, black-spots slightly; bloom moderate, almost continuous.
- *Lady Ashdown.** G. Bushy, medium height, compact, hardy; foliage plentiful, black-spots slightly; bloom free, continuous.
- Lady Hillingdon.** O.R. Height and compactness medium, rather weak, not very hardy; foliage sufficient, almost free from black-spot; bloom moderate, almost continuous.
- *Lady Ursula.** G. Tall, upright, vigorous, hardy; foliage very plentiful, rather subject to black-spot; bloom profuse early in season, abundant later, continuous.
- *Laurent Carle.** Tall, compact, growth moderate, hardy; foliage plentiful, healthy; bloom free, almost continuous.
- La Pactole.** Low-growing, slender, weak, rather tender; foliage sufficient, healthy; bloom moderate, almost continuous.
- Letty Coles.** Low-growing, bushy, not very hardy; foliage sufficient, healthy; bloom sparse, occasional during midsummer.
- Lieutenant Chauré.** G. Medium to low-growing, compact, hardy; foliage very plentiful, black-spots somewhat, mildews slightly; bloom free, almost continuous.
- Louise Lilia.** Low-growing, stocky, hardy; foliage very plentiful, black-spots somewhat; bloom moderate, intermittent.
- Lucien Chauré.** O.R. Medium to tall, compact, hardy; foliage very plentiful, healthy; bloom moderate, almost continuous.
- *Mme. Abel Chateaux.** Tall, moderately compact, fairly hardy; foliage sufficient, black-spots slightly; bloom free, almost continuous.
- *Mme. Camille.** O.R. Tall, compact, vigorous, hardy; foliage very plentiful, healthy; bloom free, continuous.
- *Mme. Caroline Testout.** G. Tall, rather upright, hardy; foliage sufficient, black-spots somewhat; bloom moderate, continuous.
- Mme. Charles Lutaud.** G. Low-growing, slender; foliage sufficient, healthy; bloom moderate, intermittent.
- Mme. Hector Leuillot.** G. Moderate height to tall, rather upright, hardy; foliage plentiful, black-spots somewhat; bloom moderate, almost continuous.
- Mme. Jean Dupuy.** O.R. Moderate height, compact, weak grower, hardy; foliage very plentiful, healthy; bloom liberal in July, moderate rest of season, almost continuous.
- Mme. Joseph Schwartz.** O.R. Low-growing, moderately compact and hardy; foliage plentiful, healthy; bloom free, almost continuous.
- *Mme. Jules Graveriaux.** G. Tall, compact, vigorous, hardy; foliage plentiful, black-spots slightly; bloom free, continuous.
- Mme. Jules Grolez.** G. Moderate height, bushy, hardy; foliage very plentiful, healthy; bloom free first half of season, moderate last half, continuous.
- *Mme. Lombard.** O.R. Tall, compact, hardy; foliage very plentiful, black-spots slightly; bloom free, continuous.
- *Mme. Leon Pain.** O.R. Almost tall, inclined to be upright, hardy; foliage plentiful, black-spots slightly; bloom abundant, continuous.
- Mme. Maurice de Lasse.** O.R. Moderately high and compact, hardy; foliage plentiful, healthy; bloom moderate, almost continuous.
- Mme. Melanie Sempert.** G. Low-growing, weak; foliage sufficient, black-spots; few blooms each month.
- *Mme. Paul Euler.** Moderately tall, quite compact, reasonably hardy; foliage plentiful and healthy; bloom abundant in July, other times almost continuous.
- Mme. Philippe Rivoire.** Low-growing, weak, moderately hardy; foliage plentiful, black-spots slightly; bloom moderate, almost continuous till midsummer, again in fall.
- Mme. Second Weber.** G. Height and compactness medium; foliage plentiful, healthy; bloom moderate, almost continuous.
- Mme. Welche.** O.R. Height and compactness medium, hardy; foliage sufficient to plentiful, healthy; bloom moderate, almost continuous spring and fall, about half time in July and August.
- Madison.** O.R. Low, weak-growing, winterkills some; foliage plentiful; bloom moderate, best spring and fall.
- Magnatano.** O.R. Low-growing, compact, reasonably hardy; foliage plentiful, healthy; bloom moderate, intermittent.
- *Maman Cochet.** G. Tall, compact, vigorous, hardy; foliage plentiful, black-spots somewhat; bloom free, continuous.
- Marie Guillot.** O.R. Low-growing, bushy, reasonably hardy; foliage plentiful, healthy; bloom free, almost continuous.
- *Marie Lambert.** O.R. Tall, bushy, hardy; foliage very plentiful, healthy; bloom free, continuous.
- *Marie Van Houtte.** O.R. Almost tall, compact, vigorous, hardy; foliage very plentiful, healthy; bloom free through summer, moderate in fall, almost continuous.
- *Marquise de Querhoent.** O.R. Medium height, bushy, hardy, foliage very plentiful, healthy; bloom moderate; almost continuous.
- Marquise de Sinéty.** G. Low-growing, slim, hardy; foliage sufficient, black-spots slightly; bloom moderate, almost continuous.
- *Mary, Countess of Ilchester.** G. Moderate height, bushy, hardy; foliage plentiful, black-spots somewhat; bloom abundant, continuous.
- May Miller.** O.R. Medium high and compact, moderately hardy; foliage sufficient, black-spots somewhat; bloom moderate, intermittent.

- Mevrouw Dora van Tets.** G. Medium high, stocky, hardy; foliage plentiful, black-spots somewhat; bloom moderate, intermittent in warmer months.
- Milady.** O.R. Low-growing, bushy, hardy; foliage sufficient, black-spots somewhat; bloom moderate, more in cool weather, less in hot months, almost continuous.
- *Miss Cynthia Forde.** Almost tall, compact, hardy; foliage plentiful, black-spots slightly; bloom free, almost continuous.
- *Miss Genevieve Clark.** G. Moderate height, compact, hardy; foliage sufficient, black-spots and mildews somewhat; bloom profuse most of time, continuous.
- Mrs. Ambrose Ricardo.** O.R. Small, upright; foliage sufficient, healthy; bloom moderate, intermittent.
- *Mrs. A. R. Waddell.** G. Tall, bushy, vigorous, hardy; foliage very plentiful, black-spots and mildews somewhat; bloom free and continuous.
- Mrs. Aaron Ward.** G. Moderately high, compact, and hardy; foliage plentiful, healthy; bloom free, continuous.
- Mrs. B. R. Cant.** Medium height, compact, fairly hardy; foliage plentiful, healthy; bloom moderate, intermittent.
- Mrs. Franklin Dennison.** O.R. Medium height, fairly compact, hardy; foliage sufficient, black-spots; bloom free, continuous.
- Mrs. George Gordon.** G. Low-growing, compact, hardy; foliage plentiful, black-spots slightly; bloom moderate, almost continuous.
- Mrs. Herbert Hawksworth.** O.R. Low-growing, moderately compact, hardy; foliage sufficient, black-spots; bloom moderate, almost continuous.
- *Mrs. Herbert Stevens.** G. Tall, compact, hardy; foliage very plentiful, black-spots and mildews somewhat; bloom free, continuous.
- Mrs. Hubert Taylor.** O.R. Low-growing, slender, not entirely hardy; foliage sufficient, healthy; bloom moderate, almost continuous.
- Mrs. Myles Kennedy.** G. Medium high and compact, hardy; foliage sufficient, free from disease; bloom moderate, almost continuous.
- Mrs. Theodore Roosevelt.** O.R. Low-growing, small, not very hardy; foliage sufficient, black-spots; bloom moderate early and late, decreasing in hot weather, none in hottest.
- *Mrs. Wakefield Christie Miller.** G. Tall, bushy, vigorous, hardy; foliage very plentiful, black-spots very much; bloom abundant, continuous.
- Mrs. W. J. Grant (Belle Siebrecht).** G. Low-growing, weak, winterkills some; foliage hardly sufficient, free from disease; bloom sparse, continuous.
- Molly Sharman Crawford.** G. Low-growing, slim, hardy; foliage sufficient, healthy; bloom moderate to free, almost continuous.
- My Maryland.** O.R. Low-growing, rather slim, not very hardy; foliage sufficient, healthy; bloom moderate, almost continuous.
- Natalie Bottner.** O.R. Low-growing, slight, hardy; foliage sufficient, healthy; bloom moderate, intermittent.
- Panama.** O.R. Almost tall, medium grower, bushy, not very hardy; foliage plentiful, healthy; bloom moderate, intermittent.
- *Papa Gontier.** O.R. Tall, bushy, hardy; foliage plentiful, healthy; bloom free, almost continuous.
- Perle des Jardins.** Tall, bushy, hardy; foliage very plentiful, black-spots slightly; bloom abundant in June, moderate in July, none later.
- Pharisee.** G. Low-growing, compact, hardy; foliage sufficient, black-spots somewhat; bloom free, continuous.
- Prince de Bulgarie.** G. Medium height, bushy, hardy; foliage plentiful, black-spots somewhat; bloom moderate, almost continuous.
- Princess Bonnie.** O.R. Moderately high and compact, fairly hardy; foliage sufficient, black-spots somewhat; bloom free, continuous.
- *Radiance.** O.R. Tall, bushy, vigorous, hardy; foliage very abundant, black-spots slightly; bloom free, continuous all season.
- *Red-Letter Day.** O.R. Moderately tall, bushy, hardy; foliage plentiful, black-spots slightly; bloom almost free, continuous.
- *Red Radiance.** O.R. Moderate height, compact, hardy; foliage very abundant, black-spots very slightly; bloom free, continuous.
- *Reine Marguerite d'Italie.** O.R. Moderate height, bushy, hardy; foliage very plentiful, black-spots; bloom abundant, almost continuous.
- Rhea Reid.** O.R. Low-growing, moderately spreading, not very hardy; foliage sufficient, healthy; bloom moderate, intermittent.
- Richmond.** Moderately high, compact, and hardy; foliage abundant, black-spots, some; bloom moderate, continuous spring and fall, almost continuous in midsummer.
- Seabird.** O.R. Low-growing, slender, moderately hardy; foliage plentiful, black-spots somewhat in midsummer; bloom moderate, intermittent.
- September Morn.** Low-growing, inclined to be compact, moderately hardy; foliage plentiful, healthy; bloom moderate through midsummer, almost continuous, spring and fall occasionally.
- Simplicity.** G. Moderate height, bushy, almost hardy; foliage plentiful, subject to midsummer drop, black-spots slightly; bloom free, almost continuous.
- Souv. de Gustave Prat.** G. Low-growing, compact; foliage plentiful, healthy; bloom free, continuous.

Souv. du President Carnot. Very low-growing, slender, winterkills some; foliage sufficient, black-spots in midsummer; bloom free, intermittent during warm months.

Souv. of Wootton. O.R. Medium height, compact, winterkills some; foliage sufficient, some black-spot in July; bloom abundant in July, free rest of season.

Striped La France. O.R. Low-growing, compact, winterkills some; foliage plentiful, black-spots slightly; bloom moderate all season, abundant through July and August, continuous.

Sunburst. O.R. Low-growing, compact, winterkills a good deal; foliage sufficient, black-spots slightly; bloom moderate, almost continuous.

Virginia R. Coxe. Medium height, compact, hardy; foliage plentiful, black-spots somewhat; bloom moderate, almost continuous.

Viscountess Folkestone. Low-growing, moderately compact, not entirely hardy; foliage plentiful, black-spots somewhat; bloom moderate, occasional.

W. E. Lippitt. O.R. Tall, bushy, hardy; foliage very plentiful, black-spots somewhat; bloom moderate and intermittent first half of season.

Waltham Scarlet. O.R. Moderate height, compact, hardy; foliage plentiful, black-spots; bloom free, intermittent.

***Wellesley.** O.R. Tall, compact, vigorous, hardy; foliage plentiful, healthy; bloom free, almost continuous.

***White Killarney.** O.R. Tall, compact, hardy; foliage plentiful, black-spots somewhat; bloom free, almost continuous.

White La France. O.R. Medium height, compact, winterkills somewhat; foliage plentiful, black-spots somewhat; bloom free, continuous.

***White Maman Cochet.** Medium height, spreading, almost hardy; foliage very plentiful, black-spots somewhat; bloom almost abundant, continuous.

White Perle des Jardins. Low-growing, compact, winterkills some; foliage sufficient to plentiful; bloom moderate, almost continuous.

***William R. Smith.** O.R. Medium height, compact; foliage plentiful, healthy; bloom free, continuous.

Willowmere. O.R. Low-growing, moderately compact; foliage plentiful, black-spots somewhat; bloom moderate, almost continuous.

Winter Gem. O.R. Very low-growing, moderately compact, winterkills some; foliage plentiful, healthy; bloom free, almost continuous.

DWARF POLYANTHAS

These roses are all hardy in Washington. Plants over two feet high are called tall, those under one and one-half feet, low-growing. All are compact; bloom more abundant than with most other roses, so that the terms used are relative to this class and not comparable to other classes.

Aennchen Muller. G. Medium height, moderate; foliage plentiful early, sufficient later, black-spots and mildews; bloom moderate.

Baby Dorothy. See Maman Levassieur.

Baby Elegance. O.R. Tall, vigorous; foliage very plentiful, black-spots badly, making it sparse in midsummer but plentiful again in fall; bloom abundant and continuous.

Baby Rambler. See Mme. Norbert Levassieur.

Baby Tausendschon. O.R. Low-growing, moderate; foliage very plentiful in spring, sparse midsummer and fall, black-spots badly in midsummer; bloom free, continuous.

Bordure. O.R. Low-growing, moderate; foliage very plentiful till late summer, when it black-spots, causing it to become sparse; bloom abundant till September then moderate, continuous.

Cecile Brunner. O.R. Low-growing, weak; foliage barely sufficient, black-spots slightly; bloom moderate, but continuous.

Clotilde Pfitzer. Tall, vigorous; foliage very plentiful till late summer, then sufficient, black-spots somewhat; bloom profuse, continuous.

Ellen Poulsen. O.R. Medium height, moderate; foliage very plentiful till midsummer, then sufficient, black-spots somewhat; bloom moderate, continuous.

Erna Teschendorff. O.R. Low-growing, vigorous; foliage very abundant till late summer, mildews most of season, black-spots in late summer; bloom free, continuous.

Gruss an Aachen. O.R. Tall, vigorous; foliage very plentiful till late summer, then plentiful, black-spots very slightly and mildews in midsummer; bloom moderate, continuous, size and quality compensate for lack of quantity.

Jessie. O.R. Low-growing, moderate; foliage very abundant till late summer, then almost sparse, black-spots in midsummer, badly later; bloom abundant till late summer, then moderate, continuous.

Katherine Zeimet. G. Low-growing, vigorous; foliage very plentiful till late summer, then plentiful, black-spots somewhat; bloom free, continuous.

Leonie Lamesh. O.R. Medium height, moderate; foliage plentiful, healthy; bloom moderate, continuous.

Mme. Jules Gouchault. O.R. Medium height, vigorous; foliage very plentiful till late summer, then sufficient, black-spots in late summer; bloom abundant till late August, then moderate, continuous.

Mme. Norbert Levassieur. G. Medium height, vigorous; foliage very plentiful till late summer, mildews from early summer on, black-spots slightly in midsummer, badly in late summer; bloom abundant till late summer, then moderate, continuous.

Maman Levassieur. O.R. Medium height, moderate; foliage very plentiful till late in season, then almost plentiful, black-spots somewhat; bloom abundant, continuous.

Marie Pavie. O.R. Medium height, vigorous; foliage very plentiful, black-spots slightly; bloom free, continuous.

Meadow Sweet. O.R. Low-growing, moderate; foliage very plentiful till midsummer, not much more than sufficient later, black-spots slightly; bloom moderate, continuous.

Mignonette. O.R. Low-growing, vigorous; foliage very plentiful till late summer, then sufficient, some black-spot from midsummer on, mildew in late summer; bloom free, continuous.

Mrs. Wm. H. Cutbush. G. Medium height, vigorous; foliage very plentiful till late summer, then sparse, black-spots badly; bloom abundant till late summer, then moderate, continuous.

Pink Soupert. G. Very low-growing, weak; foliage barely sufficient, black-spots very slightly in midsummer, mildews in late summer; bloom hardly more than sparse, continuous.

Orleans. G. Medium height, vigorous; foliage very plentiful till late summer, then sparse, black-spots some in midsummer; bloom profuse in June, grading to moderate in October and November, continuous.

Schneekopf. O.R. Medium height, vigorous; foliage very plentiful till late summer, then plentiful, black-spots slightly; bloom moderate, continuous.

Tip-Top. O.R. Low-growing, moderate; foliage plentiful till midsummer, then barely sufficient, black-spots very little in midsummer, mildews some in late summer; bloom moderate, continuous.

Triomphe Orleansais. O.R. Tall, vigorous; foliage very plentiful till late summer, then barely sparse, black-spot increasing from midsummer, mildew in late summer; bloom profuse till late summer, then decreasing to moderate in October and November, continuous.

Yvonne Rabier. G. Medium height, vigorous; foliage very plentiful, black-spots slightly, beginning earlier than with most varieties, not developing much; bloom abundant and moderate by turns, but continuous.

MULTIFLORA HYBRIDS

As a class these are on their own roots, tall-growing, vigorous, and have to be trained as described for the Wichuraianas. Foliage plentiful but very sensitive to black-spot and mildew attack, which causes a dropping of the leaves with very slight appearance of infection. Blooms usually profuse for a short period in June. Exceptions to these characters noted under the variety names.

Aglaia (Yellow Rambler.) Foliage very plentiful, holds well; bloom moderate last of May till middle of June.

Andreas Hofer. Foliage very plentiful through season; bloom free middle of June.

Anne-Marie de Montraviel. Foliage very plentiful, holds well, black-spots slightly; bloom profuse last two and one-half weeks of June, few in July.

Baron von Ittersum. Foliage very plentiful early, sufficient in midsummer, plentiful in late summer, black-spots; bloom free through June.

Baroness von Ittersum. Foliage very plentiful throughout season, black-spots badly in midsummer, mildews slightly; bloom moderate through June.

Climbing Cecile Brunner. Foliage plentiful through season, black-spots somewhat; bloom abundant in May and June, free in July, moderate later, almost continuous.

Climbing Clotilde Soupert. Foliage very plentiful till late summer, then plentiful but black-spots badly, mildews some

in midsummer; bloom moderate, almost continuous till late August.

Climbing Mosella. Foliage hardly sufficient all through season, some black-spot in midsummer, very little later; bloom moderate in June, sparse before and after, continuous in June, intermittent July and August.

Countess M. H. Chotek. Foliage very plentiful, sufficient in midsummer, very sparse in late summer, black-spots very badly; bloom free about first two weeks of June.

Dawson. Foliage plentiful, almost very plentiful, black-spots and mildews in midsummer, black-spots badly in late summer, with practically no loss of foliage; bloom profuse in late May and early June.

Electra. Foliage very plentiful, very little black-spot; bloom moderate through middle of June.

Everblooming Crimson Rambler. Foliage very plentiful, black-spots somewhat; bloom moderate through June, July, and part of August.

- Flower of Fairfield.** Foliage very plentiful through season, black-spots slightly, especially in midsummer, mildews badly in late summer; bloom abundant in June, moderate and continuous till late summer.
- Goldfinch.** Foliage very plentiful till late summer, then plentiful, black-spots slightly from midsummer on, mildews very slightly in late summer; bloom free first half of June.
- Graf Zeppelin.** Foliage very plentiful till late summer, then plentiful, black-spots and mildews very slightly; bloom profuse through most of June, sparse and moderate in July.
- Leuchstern.** Foliage very plentiful, black-spots slightly; bloom abundant in early June.
- Miss G. Meesmann.** Foliage very plentiful, black-spots badly in midsummer, slightly in late summer, leaves held on; bloom moderate early and late, profuse in July, almost continuous into November.
- Mrs. F. W. Flight.** Foliage very plentiful, black-spots and mildews from midsummer on, foliage holds well; bloom profuse during most of June.
- Mrs. W. H. Cutbush.** Foliage very plentiful till late summer, then hardly sufficient, black-spots very badly from midsummer on; bloom abundant during most of June, sparse and occasional in August and September.
- Multiflora.** Foliage very plentiful till late summer, then plentiful; bloom abundant for first two weeks of June.
- Multiflora cathayensis.** Foliage very plentiful early, plentiful rest of season, black-spots slightly in midsummer, less in late summer; bloom sparse last of May and early June.
- Multiflora japonica.** Foliage very plentiful till late summer, then plentiful, black-spots very slightly from midsummer on; bloom sparse to free the last May and early June.
- Oriole.** Foliage very plentiful, trace of black-spot in midsummer; bloom free first two weeks of June.
- Pompon.** Foliage very plentiful, black-spots very slightly from midsummer on; bloom abundant and continuous last three weeks of June, sparse and intermittent through July and August.
- Rubin.** Foliage very plentiful, trace of black-spot from midsummer on; bloom free and continuous in June, some in July.
- Seven Sisters.** Foliage very plentiful, black-spots very slightly from midsummer on; bloom abundant during most of June.
- Tausendschon.** Foliage very plentiful, black-spots very slightly from midsummer on, mildews considerably in midsummer; bloom free first half of June.
- Thalia (White Rambler).** Foliage very plentiful, black-spots very slightly; bloom free early part of June.
- Trier.** Foliage not quite so plentiful as many, black-spots slightly; bloom abundant in June, moderate till last of August, continuous.
- Wartburg.** Foliage very plentiful till late summer, then plentiful, black-spots slightly; bloom profuse most of June.

WICHURAIANA HYBRIDS

These roses, as a rule, are hardy, strong, vigorous climbers, growing on their own roots, with very plentiful healthy foliage and a short period of abundant bloom. The limitations of the fence upon which they are grown make it necessary to grow part of them with eight to twelve or more canes to a height of six feet, thus also covering six feet of length of fence, and part with four canes fourteen feet or sixteen feet or more in length, covering the arches. Where there are exceptions to the general character of the plants as described above, they are noted under the variety.

- Alba rubrifolia.** Bloom moderate two weeks in June; also makes good ground-cover.
- Alberic Barbier.** Bloom free through June.
- Alida Lovett.** Not quite so vigorous as many; foliage black-spots slightly; bloom free through three weeks of June, begins early.
- American Pillar.** Foliage black-spots some in midsummer; bloom profuse last three weeks of June.
- Bess Lovett.** Foliage black-spots very slightly; bloom profuse three weeks of June, some in July.
- Birdie Blye.** Low-growing; foliage affected by black-spot in midsummer; bloom abundant in June and July, free in August and September; moderate in October, continuous from May to November; blooms so freely there is no opportunity to grow.
- Christine Wright.** Foliage black-spots very slightly; bloom moderate half the time during June and July.
- Dazzling Red.** Foliage mildews, black-spots badly in midsummer, practically denuded in late summer or early fall; bloom profuse nearly all through June and into July.
- Debutante.** Bloom free last three weeks of June.
- Dr. W. Van Fleet.** Growth very vigorous; bloom free last three weeks of June.
- Dorothy Dennison.** Foliage black-spots slightly; bloom profuse last half of June, free through July.

- Dorothy Perkins.** Foliage black-spots slightly, especially in late summer; bloom very profuse last three weeks of June and early July.
- Evangeline.** Bloom profuse last two and a half weeks of June.
- Excella.** Foliage black-spots from midsummer on; bloom profuse last of June and early in July.
- Farguhar.** Foliage black-spots slightly; bloom profuse last two and a half weeks of June.
- Gardenia.** Foliage black-spots very slightly, mildews in late summer; bloom moderate most of June.
- Hiawatha.** Foliage black-spots some in midsummer, severely later; bloom profuse last two and a half weeks of June and free into July.
- Jean Girin.** Bloom abundant last two and a half weeks of June, moderate but occasional in July and August.
- Klondyke.** Bloom moderate during part of June.
- Lady Gay.** Foliage black-spots very slightly; bloom profuse last half of June, moderate into July.
- Longwood.** Foliage black-spots very slightly in midsummer and late summer; bloom profuse during most of June.
- Mme. Glys.** Foliage very plentiful, becoming plentiful in late summer, black-spots in midsummer, becoming much less toward fall; bloom abundant two weeks in mid-June.
- Manda's Triumph.** Bloom abundant two weeks in early June.
- Mary Lovett.** Foliage not so plentiful as in most Wichuraianas, black-spots very slightly in midsummer; bloom abundant two weeks in early June.
- May Queen.** Foliage not quite so plentiful as with most; bloom moderate through June.
- Milky Way.** Bloom moderate, intermittent during last half of June and some of July.
- Minnehaha.** Foliage black-spots very slightly in midsummer; bloom very profuse during last two and a half weeks of June.
- Mrs. M. H. Walsh.** Bloom profuse last week of June, moderate into July.
- Pearl Queen.** Bloom free through most of June.
- Petit Jean.** Foliage black-spots and mildews slightly from midsummer; bloom abundant three weeks in June.
- Petit Louis.** Foliage black-spots slightly from midsummer; bloom free two weeks in late June.
- Pink Roamer.** Foliage barely sufficient from midsummer on, very little black-spot in midsummer; bloom free for two weeks in mid-June.
- Purity.** Foliage black-spots in midsummer, very slightly in late summer, slightly mildews in midsummer; bloom sparse in June.
- Silver Moon.** Bloom abundant last three weeks in June.
- Snowdrift.** Bloom free last three weeks in June.
- Source d'Or.** Foliage mildews somewhat in late summer; bloom sparse and intermittent through mid-June.
- South Orange Perfection.** Foliage black-spots slightly in midsummer, more later; bloom moderate last two and a half weeks in June.
- Universal Favorite.** Foliage black-spots very slightly in midsummer, very sparse in late summer; bloom free through the first three weeks of June.
- W. C. Egan.** Foliage black-spots from midsummer on; bloom free through nearly all of June.
- Wedding Bells.** Foliage not quite so plentiful as with most, black-spots somewhat; bloom abundant for two weeks in mid-June.
- White Dorothy Perkins.** Bloom profuse last two and a half weeks of June, moderate during large portion of July.
- Wichmoss.** Foliage black-spots badly and mildews a good deal from midsummer on, but almost no loss of foliage; bloom abundant, almost continuously, from early June until last of month.
- Wichuraiana.** Bloom two weeks in mid-June; almost evergreen, makes a fine ground- and bank-cover.
- Wichuraiana variegata.** Foliage not nearly so plentiful as most kinds, healthy; bloom free last two and a half weeks of June. A good ground-cover.

Hybrid Perpetuals.—In 1917, fifty varieties of Hybrid Perpetuals bloomed in the Washington garden, where all of them proved entirely hardy. Generally these roses had plentiful foliage in June, followed by a midsummer drop which resulted in some of them being sparse in foliage in July and August. Apparently there is no relation between this drop of leaves and the black-spot, so far as observed in this garden.

Pressure of space prevents the inclusion of the list of varieties bloomed in 1917.

Moss.—Of these hardy, vigorous roses, rather subject to black-spot and mostly blooming for a short period, there were fourteen varieties to make a showing in 1917. All had good foliage in the early season, holding well until after midsummer, when some of them dropped a portion of the leafage.

Noisette Climbers.—These are not entirely hardy in Washington, and many

are not vigorous growers. Seven varieties bloomed in 1917, mostly with excellent foliage and attractive blooms.

Bush Noisettes.—There were three of the bush form of Noisettes in bloom in 1917. All of them carried full foliage until late summer, and all were affected by black-spot.

Rubiginosa Hybrids.—The fourteen varieties under this heading include the Lord Penzance hybrids. The plants are mostly grafted, and are vigorous and hardy, with plentiful foliage and one period of beautiful bloom.

Rugosa Hybrids.—Among the twenty-eight of these roses are some of the most encouraging varieties for garden decoration. They are vigorous in growth, with plentiful foliage in spring, although some varieties become denuded in midsummer. The flowers generally resemble those of the Hybrid Perpetuals, though not so enduring.

Setigera Hybrids.—Only four old favorites, scarcely in commerce at the present time, are included in this class. They are all tall, vigorous, and hardy in character, with plentiful foliage, and all were somewhat subject to black-spot infection.

Species Roses.—Growing in the Arlington garden are the following species—all of the utmost interest and value: *Acicularis altaica*, *Alpina*, *Banksia lutea*, *Blanda*, *Bracteata*, *Brunonis*, *Carolina*, *Cinnamomea*, *Ferruginea*, *Hugonis*, *Humilis*, *Lævigata* (Cherokee), *Lucida*, *Lucida alba*, *Macrantha*, *Multiflora*, *Multiflora* × *Lutea*, *Nitida*, *Pissardii*, *Pomifera*, *Rubiginosa*, *Setigera*, *Soulieana*, *Willmottiae*.

The Cornell Rose Test-Garden Reports Progress

By DR. A. C. BEAL
Cornell University, Ithaca, N. Y.

THE work of the Cornell Test-Garden of the American Rose Society has progressed satisfactorily. All of the beds in the original garden have been planted, and much has been accomplished in fitting additional land for increased plantings. Since the first season, the walks and paths have been in grass which has been kept mowed with a lawn-mower as often as needed from spring until fall. This adds greatly to the landscape beauty of the garden. The edges of the beds have been kept carefully trimmed and the surface covered with loose soil or with a mulch of manure. Two applications of bone-meal were made, one in the spring and the other early in July. An application of wood-ashes was made in the early spring. The continuous wet weather all summer was not favorable to some varieties. The plants appeared to go into winter quarters in

good condition, and it is hoped that they have endured the present prolonged cold weather. We hope to have a generous display for all rose-lovers who may be privileged to visit us in 1918.

NOTES ON NEW VARIETIES

Hybrid Tea Roses

Admiral Ward. (Pernet-Ducher, 1915.) A fine crimson-red; early in the season was one of the best four of this color. Large flowers throughout the season; better than Hadley; more vivid color than Richmond; plant more vigorous and hardier than either.

Augustus Hartmann. (B. R. Cant & Sons, 1914.) An unusual shade of red—the brightest in the garden—more scarlet than Richmond; does not hold its color.

Defiance. (Kress, 1914.) One of the best very dark red varieties. While the flowers lack the velvety texture of Chateau de Clos Vougeot, it is hardier. Flowers of Malmaison form; habit dwarf, bushy, with good foliage.

Dorothy Page Roberts. (A. Dickson & Sons, 1907.) Semi-double; coppery pink, suffused with yellow; free-blooming; growth very vigorous, hardy, with splendid foliage.

Ecarlate. (Boyter, 1907.) Semi-double; red. A fine late summer- and fall-blooming rose. At Ithaca it is surpassed by other reds early in the season.

Gorgeous. (H. Dickson, 1915.) A promising variety. Appears to be an intensified Mme. Melanie Soupert.

Hoosier Beauty. (Dorner, 1915.) A promising red rose. Flowers of beautiful form, large; color good and lasting; very fragrant.

Killarney Queen. (Budlong, 1909.) The best of the Killarneys for outdoor planting. Flowers larger, color deeper and more lasting than Pink Killarney; growth more vigorous.

Lieut. Chauré. (Pernet-Ducher, 1910.) A very good red rose.

Mrs. Andrew Carnegie. (Cocker, 1913.) A creamy white flower. The petals are thin, and under the conditions of 1917 the buds failed to open properly. Plant a weak grower, resembling in no respect its parent, Frau Karl Druschki. White Maman Cochet is superior to it.

Ophelia. (W. Paul & Son, 1912.) Beautiful in bud and flower, blooms freely; a long keeper. Although its hardiness has not been tested, owing to the fact that our plants were planted in the spring of 1917, we consider it very promising.

Red Cross. (A. Dickson & Sons, 1916.) Appears to be a more double Red-Letter Day.

Red-Letter Day. (A. Dickson & Sons, 1914.) Semi-double, scarlet-crimson flowers which hold their color. Plant of upright habit, and the most vigorous grower of all the single class thus far tried. A really valuable rose.

Simplicity. (H. Dickson, 1909.) The best white single Hybrid Tea. Flowers large, with a mass of golden stamens.

Polyantha or Baby Rambler Roses

Baby Elegance. (Hobbies, 1913.) Single; white, with yellow centers; profuse bloomer; dwarf, compact habit; should be set close in the bed.

Echo. (Lambert, 1914.) More vigorous and hardier than Louise Welter or Baby Tausendschön. It is a true dwarf Tausendschön. A free bloomer, remaining in flower throughout the season.

Mme. Jules Gouchault. (Turbat, 1913.) Deep salmony pink; distinct; vigorous grower, hardy; very promising.

Maman Turbat. (Turbat, 1911.) A rich pink, blooming in large clusters throughout the season. Among the Polyanthas thus far tested, this is the best pink-flowered variety.

Triomphe Orleanais. (Peauger, 1912.) The best red-colored, as well as the most vigorous-growing Polyantha. Flower-clusters very large; holds its color well over a long period, thus far surpassing *Mme. Norbert Levavasseur*.

Early-flowering Roses

Belle Poitevine (H. Ru.), *Blanc Double de Coubert* (H. Ru.), *Harison's Yellow*, *Mrs. R. B. Mellon* (*R. spinosissima*), *Rosa amblyotis*, *R. blanda*, *R. Engelmannii*, *R. humilis*, *R. pomifera*, *R. rubrifolia*, *R. rugosa albo-plena*, *R. rugosa rubro-plena*, *R. spinosissima*, *R. spinosissima* vars., *Sir Thomas Lipton* (H. Ru.), *Souv. de Pierre Leperdrieux* (H. Ru.).

The earliest rose in full bloom each season is a single, pure white-flowered species, labeled No. 22 St. Petersburg, in the collection received from the Arnold Arboretum.

Among the best fall-blooming Hybrid Teas are: *Autumn Tints*, *Baron Palm*, *Christie Mackellar*, *Colleen*, *Countess Clanwilliam*, *C. W. Cowan*, *Gartendirektor Hartrath*, *Grace Molyneux*, *Gruss an Teplitz*, *H. F. Eilers*, *Hilda Richardson*, *Lieut. Chaure*, *Mevrouw Dora van Tets*, *Milady*, *Mrs. J. Lynas*, *Mrs. Weymss Quin*, *Radiance*, *Red-Letter Day*, *Verna Mackay*, *Willowmere*.

Hybrid Teas of Exceptional Vigor

Dorothy Page Roberts, *Duchess of Sutherland*, *Frau Karl Druschki*, *Gartendirektor Hartrath*, *George Dickson*, *King George V*, *Lady Ursula*, *La Tosca*, *Marchioness of Waterford*, *Mrs. A. R. Waddell*, *Mrs. Cornwallis West*, *Mrs. J. Lynas*, *Radiance*, *Red Radiance*, *Wellesley*.

Hybrid Teas of Very Weak Growth

Bessie Brown, *Cardinal*, *Chateau de Clos Vougeot*, *Duchess of Albany*, *Earl of Warwick*, *Franz Deegen*, *Lady Helen Vincent*, *Mme. Leon Pain*, *Mme. Philippe Rivoire*, *Mme. Ravary*, *Mme. Jules Bouche*, *Marquise de Sinety*, *May Miller*, *Natalie Bottner*, *Princess Bonnie*, *Richmond*.

Late-blooming Climbing Roses

Coquina, *Delight*, *Dorothy Perkins*, *Dorothy Dennison*, *Evangeline*, *Excelsa*, *Farquhar*, *Hiawatha*, *Lady Gay*, *Lady Godiva*, *Milky Way*, *Minnehaha*, *Paradise*, *R. setigera*, *R. Wichuraiana*, *Snowdrift*, *Sodenia*, *White Dorothy*.

Early-blooming Climbing Roses

Aglais (*Yellow Rambler*), *Baroness von Ittersum*, *Bridal Wreath*, *Christine Wright*, *Climbing American Beauty*, *Climbing Cecile Brunner*, *Climbing Gruss an Teplitz*, *Countess M. H. Chotek*, *Dawson*, *Euphrosyne* (*Pink Rambler*), *Excellens Kuntze*, *Gardenia*, *Geisha*, *Goldfinch*, *Jersey Beauty*, *Kommerzeinrat W. Rautenstrauch*, *Leuchstern*, *Oriole*, *Pink Roamer*, *René André*, *R. multiflora*, *Ruby Queen*, *Tausendschön*, *Thalia* (*White Rambler*), *Thornless Rambler*.

A Back-Yard Rose-Bloom Record

By A. P. GREELEY, Washington, D. C.

EDITOR'S NOTE.—The careful record which follows ought to be of much value as a guide to amateur rose-growers, particularly in the latitude of Washington. Mr. Greeley is a patent lawyer, and was formerly Assistant Commissioner of Patents. His roses are evidently his recreation.

I HAVE kept a record the past season of my constant-blooming roses to find out, so far as I could in a single season and with only one of a kind, what roses will do best under the conditions which I can give them, recognizing, of course, that failure on such a test is not to be taken as conclusive. Some of my roses are well established and are at their best, and a number are fairly well established, but the majority were set out last spring—some of them as late as June. Most of them are on their own roots, but a number that have done especially well are budded.

I wanted to find out what roses for my particular yard, cared for with interest but little skill, would give the best results in quality of bloom, abundance of bloom, and length of blooming season. I want roses that, from such number of plants as my small yard will accommodate, will give me a good number of fine blooms every day from May to November. My record shows seventy roses which have been all that I could expect of the best, and a considerable number more that promise to do very well another year. I have had some blooms, seldom less than a dozen, every day.

My yard is little better than the ordinary city back yard. It is south of the house, is not shaded, and is inclosed with a low picket fence. But it is only 25 by 40 feet, and only half of its area is available for roses. The soil is distinctly poor, except as I have enriched it; and, as it has been difficult to get suitable manure, I have used mainly pulverized sheep-manure and bone-dust. Fortunately, the natural drainage is excellent, and the garden hose supplies plenty of water.

My complete record includes 145 plants, all, except Paul Neyron and Climbing Mosella, constant-blooming roses, mainly Teas and Hybrid Teas. I have not attempted to count the blooms on the Polyanthas, except Eugenie Lamesch and Tip-

	Date set out	Own roots or budded	First bloom 1917	May	June	July	Aug.	Sept.	Oct.	Total
G. Nabonnand	1911	O. R.	May 21	22	112	138	103	27	80	482
Mme. Eugene Marlitt	1910	O. R.	May 29	25	75	12	58	15	12	197
Lucullus	1909	O. R.	May 18	52	12	11	21	21	3	120
Climbing Mosella	1909	O. R.	May 30	5	7	22	23	2	10	69
Gloire Lyonnaise	1910	O. R.	May 25	17	11	9	13	2	—	52
Eugenie Lamesch	May, 1916	O. R.	May 23	3	9	21	8	4	5	80
Antoine Rivoire	May, 1916	O. R.	May 29	1	5	15	8	7	3	39
Queens Scarlet	1909	O. R.	May 29	1	11	9	1	3	1	26
Lady Ursula	May 14, 1917	Bud	June 9	—	7	7	7	—	3	24
Frau Karl Druschki	April, 1916	O. R.	June 1	—	21	2	—	—	—	23
Mme. Segond Weber	April 17, 1917	O. R.	May 15	4	4	9	3	2	1	23
Mrs. W. Christie Miller	April 17, 1917	O. R.	May 22	2	10	3	7	—	1	23
Charles Dingee	May, 1916	O. R.	June 19	—	8	4	6	1	3	22
Muriel Dickson	April 17, 1917	Bud	May 18	2	12	4	2	—	—	20
Francis C. Seton	April, 1916	O. R.	June 7	—	4	10	3	3	—	20
Marquise de Querhoent	April 12, 1917	O. R.	June 30	—	1	4	6	5	4	20
Gross an Teplitz	May, 1916	ly O.R.	May 23	5	4	10	1	—	—	20
Ecarlate	May 11, 1917	O. R.	June 29	—	1	8	6	1	1	17
Radianca	April, 1916	O. R.	June 6	—	4	10	2	—	—	17
Autumn Tints	May 15, 1917	Bud	June 14	—	1	9	2	4	1	17
Mme. Philippe Rivoire	April 16, 1917	Bud	June 27	—	5	9	1	1	—	16
Paul Neyron	1910	O. R.	June 1	—	15	—	—	—	1	16
La Tosca	April, 1916	O. R.	June 28	—	1	4	6	4	1	16
Mary, Countess of Ilchester	May, 1916	O. R.	June 11	—	9	1	3	2	—	15
Mme. Caroline Testout	April 12, 1917	O. R.	June 23	—	3	7	3	1	—	15
Mabel Drew	April, 1916	O. R.	May 25	2	5	4	1	2	—	14
Duchess of Wellington	April 12, 1917	O. R.	June 24	—	6	3	3	—	1	13
White Maman Cochet	1911	O. R.	June 3	—	7	4	—	1	1	13
Reina Robbins	April 17, 1917	O. R.	June 23	—	3	2	—	—	—	13
Los Angeles	April 21, 1917	Bud	June 11	—	6	2	5	1	—	12
Mrs. Amy Hammond	April 17, 1917	O. R.	June 9	—	6	5	—	1	—	12
George Dickson	May, 1916	O. R.	June 2	—	5	5	1	1	—	12
Harry Kirk	April, 1916	ly O.R.	May 31	1	6	—	1	4	2	12
Mrs. Aaron Ward	April, 1916	Bud	June 10	—	2	3	3	—	—	12
Louise C. Breslau	April 16, 1917	Bud	June 24	—	6	1	4	—	—	11

	Date set out	Own roots or budded	First bloom 1917	May	June	July	Aug.	Sept.	Oct.	Total
Winter Gem	1909	O. R.	May 29	1	6	—	1	2	1	11
Countess Clanwilliam	May 15, 1917	Bud	June 22	—	6	2	2	1	—	11
Mrs. Ambrose Riccardo	April 16, 1917	Bud	May 27	2	2	4	2	1	—	11
Tip-Top	April 21, 1917	O. R.	June 16	—	1	4	4	1	1	11
Königin Carola	April 16, 1917	Bud	June 3	—	6	—	3	1	1	11
White Killarney	April 12, 1917	O. R.	May 27	1	4	1	4	—	—	10
Senateur Mascrand	May 14, 1917	Bud	May 29	1	1	4	2	—	—	10
Mrs. Frank Bray	May 19, 1916	ly O. R.	June 14	—	6	2	1	1	1	10
Lady Pirrie	June 4, 1917	Bud	July 7	—	—	7	1	—	—	10
Nerissa	May, 1916	ly O. R.	June 27	—	2	1	1	2	4	10
Constance	April 16, 1917	Bud	June 16	—	8	—	2	—	—	10
Willowmere	April, 1916	O. R.	May 28	1	3	5	—	—	—	9
Hoosier Beauty	May, 1916	ly O. R.	May 25	7	2	—	—	—	—	9
Souv. de Gustave Prat	April, 1916	O. R.	June 3	—	5	2	—	2	—	9
Laurent Carle	May, 1916	O. R.	June 1	—	3	5	—	—	—	8
Friedrichshöhe	June 16, 1917	Bud	July 5	—	4	4	3	—	1	8
Alexander Hill Gray	June, 1916	O. R.	June 18	—	—	—	—	2	—	8
Comte G. de Rochemur	June 16, 1917	O. R.	July 23	—	2	3	1	—	2	8
Miss Alice de Rothschild	April, 1916	O. R.	June 3	—	2	3	—	1	—	7
Chateau de Clos Vougeot	May 11, 1917	Bud	June 22	—	2	5	—	—	—	7
Ophelia	April, 1916	O. R.	May 24	1	4	1	—	—	4	7
Gorgeous	June 16, 1917	O. R.	July 24	—	—	2	1	—	—	7
Queen Mary	June 4, 1917	Bud	June 8	—	1	5	1	—	—	7
Jonkheer J. L. Mock	April, 1916	O. R.	May 28	1	5	—	1	—	—	7
Mrs. Sam Ross	May, 1916	ly O. R.	May 31	1	3	—	1	—	—	6
Mme. Ravary	June 4, 1917	Bud	June 13	—	2	1	1	—	—	6
Mrs. Chas. E. Pearson	May 11, 1917	O. R.	June 8	—	2	1	2	1	—	6
Edward Mawley	April, 1916	O. R.	June 19	—	3	1	1	1	—	6
Mme. Leon Pain	June, 1916	O. R.	June 10	—	2	2	1	—	—	5
Mrs. Herbert Stevens	May 24, 1917	O. R.	July 16	—	—	1	4	—	—	5
Viscountess Folkestone	May 11, 1917	Bud	June 29	—	1	2	2	—	—	5
Pharisee	May, 1916	ly O. R.	June 6	—	2	1	2	—	—	5
Mrs. B. R. Cant	May 11, 1917	O. R.	June 29	—	1	1	2	—	—	5
Kaiserin Augusta Victoria	May, 1916	O. R.	May 27	1	1	—	1	2	1	5
Miss Cynthia Forde	May 14, 1917	Bud	June 9	—	2	—	2	—	1	5

Top, or on the few climbing roses and Hybrid Perpetuals which I have.

From 30 of these roses I cut, in May, 166 blooms. In June, from 100 roses, I cut 536; in July, 106 roses gave me 501 blooms; in August, 82 roses gave me 392 blooms; in September, from 60 roses, I had 173 blooms; in October, from 36 roses, I had 159 blooms, and the cold weather the first of November spoiled more than 140 promising buds on more than 40 plants.

The seventy plants of which the record follows were all, except as noted, the two-year growing plants as supplied by leading rose-growers, and they were purchased from some eight or ten different growers, all coming a considerable distance. Of the roses in the record it should be noted that Muriel Dickson died early in August, and that Hoosier Beauty was transplanted in July, checking its blooming. The blooming of Willowmere, Ophelia, and a number of others which did well the first part of the season, was later checked by the shade from dahlias and chrysanthemums which will be shifted to other positions another year.

Only perfect blooms appear in the record. The date set out, whether budded or own-root, the date of first bloom and the distribution of blooms by months given in the record—all would have helped me in selecting roses which would do well for me, but I could not seem to find this information, even in the American Rose Annual.

The record on pages 136 and 137 tells the story in detail.



A Partial List of Roses Introduced in America

Compiled by CHARLES E. F. GERSDORFF
and THE EDITOR

(Corrected in this Third Edition to March 10, 1918)

In the 1916 American Rose Annual there was presented "A Partial List of American Hybridized Roses, with Parentage and Date of Introduction so far as Ascertainable." The roses thus listed were in every case admitted only upon information obtained from the hybridizer or introducer, or from a reliable source. Only hybridized sorts, and not "sports," were listed, and no claim of completeness was made. The listing was under headings for each hybridizer, and not general.

At much expenditure of time and patience, and through much correspondence, Mr. Gersdorff has now covered the whole field of American introductions, both as to seedlings and sports. The Editor has added the roses recorded by the American Rose Society, and others of his cognizance.

While it is believed that the result is more complete than any previously published, no claim for entire accuracy is made. It is insisted that the list has been most carefully compiled, and that there is in consequence here presented the beginning, at least, of an accurate name and origin list.

The carelessness of growers and introducers in relation to names, origin, etc., has been—and is—painfully apparent. Unfortunate duplications appear, even in roses introduced within the present century.

It is expected that this list will serve to prevent further duplications or name similarities, and protest will be made against the registration by the American Rose Society hereafter of any rose under a name already used, or of a rose for which no parentage is given.

Following the list of Abbreviations and the List of Works Consulted are the References used, the numbers preceding which are found following names in the list of varieties, as authorities.

The Editor urges that any omissions or errors be called to his attention, and that makers of trade catalogues adopt the spelling and classification here presented.

ABBREVIATIONS

The abbreviations used are: B. (Bourbon), B.-C. (Bourbon-China), Bengal-C. (Bengal-China), C. (China), Cl.B. (Climbing Bourbon), Cl.H.T. (Climbing Hybrid Tea), Cl.T. (Climbing Tea), D. (Damask), H.Cl. (Hardy Climber), H.D. (Hybrid Damask), H.Mult. (Hybrid Multiflora), H.N. (Hybrid Noisette), H.P. (Hybrid Perpetual), H. Ramb. (Hybrid Rambler), H. Ru. (Hybrid Rugosa), H.T. (Hybrid Tea), H.W. (Hybrid Wichuraiana), H.W.-Ru. (Hybrid Wichuraiana-Rugosa), Lev. (Lævigata), Mult. (Multiflora), N. (Noisette), Per. (Pernetiana), Poly. (Polyantha), Ramb. (Rambler), Semp. (Semperflorens), T. (Tea), W. (Wichuraiana), A. R. S. (American Rose Society).

LIST OF WORKS CONSULTED

A. B. C. of Rose Culture, The, by Edward Mawley. 1897.
Amateurs' Rose Book, The, by Shirley Hibberd.
American Rose Culturist, The, by C. M. Saxton.
Beauties of the Rose, etc., by H. Curtis. 1853.
Beautiful Roses, etc., by John Weathers.

Book about Roses, A, by S. R. Hole.
Book of Roses, The, by Francis Parkman. 1866.
Book of Roses, The, by Louis Durand.
Book of the Rose, The, by Foster-Melliar; edited by Page-Roberts & Molyneux.
Catalogue de la roseraie de Bagatelle pour l'année 1913.

- Commercial Rose Culture, by Eber Holmes. Concours international de roses, etc. 1908.
Cultivated Roses, etc., by T. W. Sanders. 1899.
Cultural Directions for the Rose, etc., by John Cranston. 6th ed.; rev. 1877.
Cultur, etc., der rosen, by C. Nickels. 1845.
Die rose, etc., by T. Nietner. 1880.
England's National Flower, by George Bunyard.
Histoire naturelle de la rose, etc., by J. L. M. Guillemeau. 1800.
La rose, etc., by J. L. A. Loiseleur-Deslongchamps. 1844.
La rose, etc., by Jules Bel. 1892.
La rose, etc., by L. P. F. A. Chesnel de la Charboulais. 2d ed. 1838.
Le livre d'or des roses, by Paul Herriot. 1903.
Les roses, by H. Jamain. 2d ed. 1873.
Les roses de l'imperatrice, etc., by Jules Graveraux.
Les roses, etc., by Shirley Hibberd. 1882.
Les Rosiers, etc., by P. C. M. Cochet. 3d ed. 1908.
List of Roses, etc., by Brougham & Vaux. 1898.
New Roses (supplement), by Rose G. Kingsley. 1913.
Nomenclature of the Rose, etc., by Leon Simon. 1st ed., 1899; 2d ed., 1906.
Observations sur la nomenclature . . . roses, by J. Vibert. 1824.
Parsons on the Rose, by S. B. Parsons. 1869. New and rev. ed. 1910.
Prodrome de la monographie . . . roses, etc., by C. A. Thory.
Rosarum monographia, by John Lindley. Rev. ed. 1830.
Rose Amateurs' Guide, The, by Thomas Rivers. 11th ed. 1877.
Rose Book (translation into English), by Julius Hoffman. 1905.
Rose Book, The, by H. H. Thomas. Reprint of 1st ed., 1914.
Rose Garden, The, by William Paul. 10th ed. 1903.
Rose Growing, etc., by J. G. Lookley. 2d ed.
Rose Growing Made Easy, by E. T. Cook.
Rose Manual, The, by Robert Buist. 4th ed. 1854.
Roseraie de l'Hay, Guide, etc. 1910; Nomenclature, etc. 1902.
Roses and How to Grow Them, by Leonard Barron.
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Roses and Rose-Growing, by Rose G. Kingsley. 1908.
Roses and Their Culture, by W. D. Prior. 3d ed. 1892.
Roses, by H. C. Andrews.
Roses, by H. Darlington. 1911.
Roses, by Gemen and Bourg of Duchy of Luxembourg.
Roses, by J. H. Pemberton.
Roses, by Rafinesque-Schmalz.
Rose, The, by H. B. Ellwanger.
Rose, The, by Henry Shaw.
Société Nationale d'Horticulture de France, Section des Roses, etc. 1912.
Tea Roses, etc., by F. R. Burnside. 1893.

REFERENCES

The number at the end of each description on the following pages refers to the sources considered in the list below. When two numbers follow, the rose has been described in each of the sources cited.

1. Nomenclature de tous les noms de roses, by Leon Simon and P. Cochet. 1899.
2. Beautiful Roses, by John Weathers. 1903.
3. Roses and Rose-Growing, by Rose G. Kingsley. 1908.
4. New Roses, by Rose G. Kingsley. 1913.
5. Société Nationale d'Horticulture de France, Section des Roses, Les plus belles roses au debut du XX siecle. 1912.
6. Les roses, etc., by Shirley Hibberd. 1882.
7. Parsons on the Rose, by S. B. Parsons. 1869 and 1910.
8. The Book of Roses, by Francis Parkman. 1866.
9. The Amateur Gardeners' Rose Book, by Dr. Julius Hoffman; translation by John Weathers. 1905.
10. The Rose Manual, by Robert Buist. 1854.
11. List of Roses, by Bougham and Vaux. 1898.
12. Concours international de roses nouvelles a Bagatelle. 25 juin, 1908.
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14. Roses and Their Culture, by W. D. Pryor. 1892.
15. Information obtained from various sources, such as American and foreign catalogues, from American growers by correspondence. From catalogues of California Rose Company, Hugh Dickson, Walsh, Alex. Dickson & Sons, Conard & Jones, Good & Reese, Dreer, Fancher Creek Nurseries, Glen Saint Mary Nurseries, J. T. Lovett, Vaughan's Seed Store, Jackson & Perkins Co., Elliott Nursery, Leedle Floral Co., Howard Rose Co., E. G. Hill Co., The Luther Burbank Co., and Hoopes, Bro. and Thomas Co. By correspondence from Walsh, Dingee & Conard, Conard & Jones, Farr, Totty, Biltmore Nurseries, Heller Brothers, A. N. Pierson, Inc., McGregor Brothers Co., Hugh Dickson, the Editor of *The Garden*, London, England, John Lewis Childs, Inc., Gude Bros., and R. Witterstaetter and others.

16. *Roses and How to Grow Them*, by Leonard Barron. 1905.
 17. *The Rose*, by H. B. Ellwanger. Ed. 1892.
 18. Catalogue of W. R. Gray, Oakton, Fairfax Co., Va. 1916.
 19. *Pract. Besch. Rosensammlist . . . Boom-en Plantenbeurs te Boekoop*. 1909
 20. *The Amateur's Rose Book*, by Shirley Hibberd. 1894.
 21. *On the Culture of the Rose*, by Robert Buist. 1844.
 22. *On the Rose*, by Robert Buist. 1851.
 23. National Rose Society Official Catalogue of Roses. 1914.
 24. *The American Florist*, Sept. 22, 1917.
 25. Catalogue of Roses, Peter Lambert, Trier, Germany. 1911-12.
 26. Catalogue of Roses, Hobbies, Ltd., England. 1917.
- ABUNDANCE, Poly. (Henderson, 1910.) Clotilde Soupert × Souv. du President Carnot. 25.
- ADMIRAL DEWEY, H.T. (Taylor, 1899.) Sport from Mme. Caroline Testout. 15, 19.
- ADMIRAL EVANS, H.T. (E. G. Hill Co., 1907.) 5, 13. Liberty × unnamed seedling. 12.
- ADMIRAL SCHLEY, H.T. (Cook, 1901.) Colonel Joffe × General Jacqueminot. Received Bronze Medal at Pan-American Exposition. 19.
- AGNES EMILY CARMAN, H.Ru. (Carman, —.) Persian Yellow × *R. rugosa*. 15.
- ALBA RUBRIFOLIA, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) *Wichuraiana* hybrid.
- ALICE ALDRICH, H.Ru. (Conard & Jones Co., 1901.) 15. *R. rugosa* × Caroline de Sansal. 19.
- ALICE LEMON, H.T. (Hill, 1911.) Mme. Philippe Rivoire × Paul Neyron. 25.
- AMERICA, H.Cl. (Walsh.) 14.
- AMERICA, N. (Page, 1859.) Large, fine flower of creamy white. 8, 16.
- AMERICA, H.Ru. (Garden, Harvard University, 1894.) 5.
- AMERICAN BANNER, T. (Cartwright, 1879.) 1, 17. Sport of Bon Silene. 16.
- AMERICAN BEAUTY, H.P. (Bancroft, 1886.) Syn., Mme. Ferd. Jamain, as which it seems to have been introduced in France by Ledéchaux, 1873. 3, 17, 19. (Field Brothers.) 16.
- AMERICAN BELLE, H.P. (J. Burton, 1893.) Sport from American Beauty. 19.
- AMERICAN PILLAR, H.W. (Van Fleet, 1902; intro. by Conard & Jones Co.) *R. Wichuraiana* × *R. setigera*. 19.
- AMCENA, Lev. (Hockbridge, 1909.) 15.
- ANNA MARIA, *Setigera* type. (Feast, 1843.) 1, 13, 19. Syn., Anna Marie. 15.
- ANNIE COOK, T. (Cook, 1888.) 1. Seedling from Bon Silene. 17.
- APPLE BLOSSOM, Poly. (Schultheis, 1908.) 23.
- ARCADIA, H.W. (Walsh, 1913.) 15.
- ARNOLD, H.Ru. (Dawson, 1914.) *R. rugosa* × General Jacqueminot.
- ATLAS, H.T. (Hill, 1903.) 19.
- AUGUSTA, N. (1853.) Sulphur. 1. Seedling from Solfaterre. 8.
- BABETTE, H.Cl. (Walsh, 1908.) 15, 19.
- BALTIMORE BELLE, *Setigera* type. (Feast, 1843.) 10, 19.
- BEAUTY OF GREENMONT, *Setigera* hybrid. (Pentland of Baltimore, 1854.) 16.
- BEAUTY OF GREENWOOD. N. 17.
- BEAUTY OF ROSEMAWR, B. (Conard & Jones Co., 1903.) 15, 19.
- BEAUTY OF THE PRAIRIES, *Setigera* type. (Feast, 1843.) 13, 19. Syn., Queen of the Prairies, Prairie Queen, 10; Feast's No. 1, Mme. Caradori Allan, 22.
- BEDFORD BELLE, H.T. (Bedford Flower Company, registered 1916.) 15.
- BELLE AMERICAINE, H.P. (D. Boll, 1837.) 1, 16, 17.
- BIRDIE BLYE, H.Cl. (Van Fleet, 1904; intro. by Conard & Jones Co.) Helene × Bon Silene. 19.

- BLUSH MARTLAND**, H.T. (Totty, 1912.) 15.
BLUSH O'DAWN, H.T. (Walsh, 1902.) 13.
BONNIE BELLE, H.Cl. (Walsh.)
BOSTON, H.T. (Montgomery Co., reg. A. R. S., 1917.) Mrs. Geo. Shawyer × Montgomery seedling. 15.
BRIDE, T. (May, 1885.) 15, 19. Sport from Catherine Mermet. 16. Syn., The Bride. 15.
BRIDESMAID, T. (Moore, 1892.) 15, 19. Sport from Catherine Mermet. Probably identical with The Hughes. 16.
BRIGHTON BEAUTY, T. (Originated by Bragg; sent out by May, 1891.) 16, 17.
BURBANK, Bengal. (Burbank, 1900.) 5. Armosa (Hermosa) × seedling of Bon Silene. 15, 19.
BUTTERCUP, Cl.T. (California Rose Company, 1908.) 15.
CALIFORNIA, H.T. (Howard & Smith, 1916; reg. American Rose Society.)
CAPTAIN HUDSON, Per. (Kersbargen Brothers, 1911.) 15.
CARDINAL, H.T. (Cook, 1904.) Liberty × unnamed red seedling. 19.
CARISSIMA, H.W. (Walsh, 1905.) 15. Seedling of Wichuraiana. 19.
CAROLINE COOK, T. (Cook, 1871.) Seedling from Safrano. 17.
CATHERINE BELL, H.P. 20. (Bell & Son, 1877.) 17.
CHAMPION OF THE WORLD, Bengal. (Woodhouse, 1894.) 1.
CHAMPNEY'S PINK CLUSTER, N. Supposed hybrid of *R. chinensis* × *R. moschata* raised about 1816 by John Champney, of Charleston, S. C. About 1817 Philip Noisette, of the same city, grew from it a rose which his brother, Louis Noisette, of Paris, distributed as Blush Noisette. 2, 16.
CHAMP WEILAND, H.T. (Weiland and Risch, reg. A. R. S., 1916.) Sport from Killarney. 15.
CHARLES GETZ, B. (Cook, 1871.) 17.
CHARLES WAGNER, H.P. (Van Fleet, 1904; intro. by Conard & Jones Co.) Jean Liabaud × Victor Hugo.
CHILDS' JEWEL, H.T. (Childs, 1902.) Sport from Killarney. 15.
CHRISTINE WRIGHT, H.W. (Hoopes, Bro. & Thomas Co., 1909.) Unnamed seedling × Mme. Caroline Testout.
CINDERELLA, H.W. (Walsh, 1909.) 15, 19.
CLARA BARTON. (Van Fleet, 1898.) Clotilde Soupert × American Beauty. 16.
CLIMBING AMERICAN BEAUTY, H.W. (Hoopes, Bro. & Thomas, Co., 1909.) American Beauty × Marion Dingee × Wichuraiana. 15. Silver Medal A. R. S., 1915.
CLIMBING BRIDESMAID, T. (Dingee & Conard, —.) Sport. 15.
CLIMBING CECILE BRUNNER, Poly. (Sport at Riverside, Calif., 1901.) 15.
CLIMBING CLOTILDE SOUPERT, Poly. (Dingee & Conard, 1902.) Sport. 19.
CLIMBING COL. R. S. WILLIAMSON, H.T. (Dingee & Conard, —.) Sport. 15.
CLIMBING COMTESSE EVA STARHEMBERG, T. (Glen Saint Mary Nurseries, 1917.) Sport. 15.
CLIMBING ETOILE DE FRANCE, H.T. (Howard Rose Co., 1915.) Sport. 15.
CLIMBING FRAU KARL DRUSCHKE, H.P. (Lawtenson, 1906.) Sport. 15, 19.
CLIMBING GRUSS AN TEPLITZ, H.T. (Storrs & Harrison, 1911.) Sport. 15.
CLIMBING HELENE CAMBIER, H.T. (California Rose Co. 1911.) Sport. Syn., Climbing Helene Gambier. 15.
CLIMBING HELEN GOULD, H.T. (Good & Reese, 1912.) Sport from Balduin (Helen Gould). 15.
CLIMBING HUGH DICKSON, H.P. (California Rose Company, 1914.) Sport. 15.
CLIMBING KILLARNEY, H.T. (Reinberg, 1908.) Sport. 15.

- CLIMBING LA FRANCE, H.T. (Henderson, 1893.) Sport. 1, 3, 19.
 CLIMBING LIBERTY, H.T. (May, 1908.) Sport. 23, 26.
 CLIMBING MARIE GUILLOT, T. (Good & Reese, 1897.) Sport. Syns., President Cleveland; Frances Willard. 15.
 CLIMBING METEOR, H.T. Sport. 3.
 CLIMBING MME. JULES GROLEZ, H.T. (Dingee & Conard, —.) Sport. 15.
 CLIMBING MME. WELCHE, T. (Mellen, 1911.) Sport. 15.
 CLIMBING MOSELLA, Poly. (Conard & Jones Co., 1909.) Sport. 15, 19, 25.
 CLIMBING MRS. W. J. GRANT, H.T. (E. G. Hill Company, 1899.) Sport from Mrs. W. J. Grant (Belle Siebrecht). Syn., Climbing Belle Siebrecht (W. Paul & Son, 1899). 15, 23.
 CLIMBING MY MARYLAND, H.T. (Dingee & Conard, 1915.) Sport. 15.
 CLIMBING ORIENTAL, C. (U. S. Department of Agriculture, 1914.) Seedling. 15.
 CLIMBING PAPA GONTIER, T. (Riverside, Calif., 1901.) Sport. 15.
 CLIMBING PERLE DES JARDINS, T. (J. Henderson, 1891.) Sport. 2, 3, 13, 17, 19.
 CLIMBING PINK AMERICAN BEAUTY, H.T. (U. S. Nur. Co., reg. 1914.) 15.
 CLIMBING PINK MAMAN COCHET, T. (Conard & Jones Co., 1915.) Sport. Syns., Climbing Maman Cochet; Climbing Pink Cochet. 15.
 CLIMBING RAINBOW, T. (California Rose Company, 1914.) Sport. 15.
 CLIMBING RHEA REID, H.T. (California Rose Company, 1914.) Sport. 15.
 CLIMBING ROSEMARY, H.T. (Dingee & Conard, —.) Sport. 15.
 CLIMBING SUNBURST, H.T. (Howard Rose Co., 1915.) Sport. 15.
 CLIMBING WHITE KILLARNEY, H.T. (Conard & Jones, —.) Sport. 15.
 CLIMBING WINNIE DAVIS, T. (California Rose Company, 1913.) Sport. 15.
 CLIMBING WOOTTON, H.T. (Thos. Butler, 1899.) Sport of Souv. of Wootton. 15.
 COLUMBIA, H.W. (Hoopes, Bro. & Thomas Co., 1903.) Unnamed seedling × Mme. Caroline Testout.
 COLUMBIA, H.T. (Hill, reg. A. R. S., 1917.) Ophelia × Mrs. George Shawyer.
 COQUINA, H.W. (Walsh, 1909.) 15, 19.
 CORA L. BARTON, N. (Buist, 1850.) Seedling from Lamarque. 21.
 CORNELIA COOK, T. (Cook, 1855.) 15, 19. Sometimes given as Cornelia Koch. (A. Koch, 1855.) Seedling from Devoniensis. 17.
 CORONA, H. Ramb. (Burbank, 1913.) 15.
 CORONET, H.T. (Dingee & Conard, 1897.) Carmine, 1; white, yellow, 13.
 CRIMSON CHAMPION, H.T. (Cook, 1916.) 15.
 CRIMSON QUEEN, H.T. (Montgomery, 1912.) Liberty × Richmond × General MacArthur.
 CRIMSON ROAMER, H.W. (Manda, 1901.) Bardou Job × Jersey Beauty.
 CUMBERLAND BELLE, Moss. (Dreer, 1900.) Sport from Princess Adelaide. 19.
 DARK PINK RUSSELL, H.T. (Montgomery, 1916.) Sport. 15.
 DAVID HARUM, H.T. (Hill, 1904.) 3, 19.
 DAWSON, H. Mult. (Dawson, 1890.) *R. multiflora* × Gen. Jacqueminot twice. 19.
 DAWSON'S HYBRID RUGOSA, H. Ru. (Dawson, —.) General Jacqueminot × *R. rugosa*. 15.
 DAWSONIANA, Mult. (Ellwanger, 1901.) 13.
 DAYBREAK, H.W. (Dawson, 1909.) *R. Wichuraiana* × *R. indica carnea*.
 DAYDAWN, H.T. (Heller Brothers, 1909.) 15.
 DEBUTANTE, W. (Walsh, 1902.) *R. Wichuraiana* × Baroness Rothschild. 15, 16, 19.
 DEFIANCE, H.T. (Hill, 1907.) Lady Battersea × Gruss an Teplitz. 19.
 DEFIANCE, H.T. (Kress, registered 1914.) "Cross between Gruss an Teplitz and Etoile de France."
 DELIGHT, H. Cl. (Walsh, 1904.) A. R. S. Cert. of Merit. 15, 19.

- DINSMORE, H.P. (Henderson, 1888.) 1.
 DOROTHY PERKINS, H.W. (Jackson & Perkins, 1902.) *R. Wichuraiana* × Mme. Gabriel Luizet. 9. (1901.) 15.
 DOUBLE LÆVIGATA, Læv. (California, 1900.) Syns., Double Cherokee; *R. levigata fl.-pl.* 15.
 DOUBLE OPHELIA, H.T. (Hill, reg. A. R. S., 1917.) Ophelia × unnamed seedling.
 DOUBLE PINK KILLARNEY, H.T. (Robert Scott & Son, 1910.) Sport. 15.
 DOUBLE WHITE KILLARNEY, H.T. (Budlong, 1918.) Sport. 15.
 DOUBLE WHITE KILLARNEY, H.T. (Totty, 1914.) Sport. 15.
 DR. KANE, N. (Pentland, 1856.) 16, 17.
 DR. W. VAN FLEET, H.W. (Van Fleet, 1910.) *R. Wichuraiana* × Souv. du President Carnot. Syns., Dr. Van Fleet; Van Fleet Rose. 15.
 EASTERN GEM, T. (Conard & Jones Co., 1905.) 19.
 EDWARD VII, Poly. (Schultheis, 1910.) 26.
 EDWIN LONSDALE, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Safrano. 19.
 ELEGANS, Setigera type. (Feast, about 1843.) Syn., Chillicothe Multiflora. 10.
 ELIZABETH ZEIGLER, H.W. (A. N. Pierson, reg. 1917.) Sport of Dor. Perkins.
 ELLA CHATIN, H.T. (Hill, 1909.) 13.
 ELLA MAY, T. (May, 1890.) 5.
 EMPRESS OF CHINA, Bengal. (Jackson & Perkins, 1896.) 5, 15, 19. Syn., Apple Blossom. 15.
 ENCHANTER, H.T. (Cook, 1903.) Mme. Caroline Testout × Furon. 19.
 ERSKINE PARK BELLE, W. (Edw. J. Norman.) Sport from *R. Wichuraiana*. 15.
 ETOILE DE FRANCE, JR., H.T. (California Rose Company, 1911.) Sport. 15.
 EVA CORINNE, Setigera type. (Pierce, of Washington, D. C., 185-.) 10.
 EVANGELINE, H.W. (Walsh, 1906.) 15, 19. *R. Wichuraiana* × Crimson Rambler. 12.
 EVELYN, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1918.) Sport of Ophelia. 15.
 EVERGREEN GEM, H.W. (Manda, 1889.) *R. Wichuraiana* × Mme. Hoste. 19.
 EXCELSA, H.Cl. (Walsh, 1908.) Syn., Red Dorothy Perkins. 15. Hubbard Gold Medal, A. R. S., 1914
 FARQUHAR, H.W. (Dawson, 1903.) *R. Wichuraiana* × Crimson Rambler. 15, 16, 19. Syn., The Farquhar. 15.
 FLAG OF THE UNION, T. (Hallock & Thorpe.) Sport from Bon Silene. 17.
 FLORENCE CHENOWETH, Aus. Brier. (Chenoweth, reg. A. R. S., 1918.) Sport of Mme. Edouard Herriot. 15.
 FLOWER OF FAIRFIELD, Mult. (Schultheis, 1909.) 13. (1908.) 15. (Ludorf, 1908.) 19. Syn., Everblooming Crimson Rambler. 15.
 *FLUSH O'DAWN, H.T. (Walsh, 1902.) Margaret Dickson × Sombreuil. 19.
 FRANCIS SCOTT KEY, H.T. (Cook, 1913.) Radiance × No. 411 (an unnamed crimson seedling).
 FREDERICK R. M. UNDRITZ, H.W. (Undritz, reg. A. R. S., 1917.) Dr. W. Van Fleet × Mrs. W. J. Grant (Belle Siebrecht). 15.
 GAINESBOROUGH, Cl.H.T. (Good & Reese, 1903.) Sport from Viscountess Folkestone. Syns., Climbing Viscountess Folkestone; Gainesboro. 15.
 GALAXY, W. (Walsh, 1906.) 26.
 GARDENIA, H.W. (Manda, 1899.) *R. Wichuraiana* × Perle des Jardins. 19. Syn., Hardy Marechal Niel. 15.
 GARNET CLIMBER, H.W. (Van Fleet, 1907.)
 GEM OF THE PRAIRIE, Setigera type. (Burgess, 1868.) Beauty of the Prairies × Mme. Laffay. 7.

*Probably identical with Blush o'Dawn, H.T. (Walsh. 1902.) 13.

- GENERAL MACARTHUR, H.T. (Hill, 1904.) 19.
 GENERAL ROBERT E. LEE, T. (Good & Reese, 1896.) 15.
 GENERAL VON MOLTKE, H.P. (Bell & Son, 1873.) Seedling from Charles Lefebvre. Inferior. 17.
 GEORGE PRABODY, B. (Pentland, 1857.) 16. Seedling from Paul Joseph. 17.
 GOLDEN GATE, T. (Dingee & Conard, 1892.) 9, 19. Safrano × Cornelia Cook. 5, 9. (Jones of New Orleans, about 1888.) 16.
 GOLDEN GEM, H.T. (Towill, reg. A. R. S., 1917.) Lady Hillingdon × Harry Kirk.
 GOLDEN TROPHY, Cl.T. (California Rose Company, 1914.) 15.
 GREVILLE, Mult. (America, 1900.) Syns., Grevillea and Seven Sisters. 15.
 HADLEY, H.T. (Montgomery, 1914.) Liberty × Richmond, the resulting seedling × General MacArthur. Awarded Gold Medal A. R. S., 1914.
 HANSA, H.R.U. (Iowa Experiment Station, —) 15.
 HARRISON'S YELLOW, Brier. (Harrison, of New York.) 10, 19. (1830.) 15. Syns., *R. Harrisonii*; Hogg's Yellow; Yellow Sweetbrier. 21.
 HELEN GOOD, T. (Good & Reese, 1906.) Sport from Maman Cochet. 15, 19. Syn., Golden Cochet. 15.
 HELEN MILLS, H.T. (Dingee & Conard, 1910.) 25.
 HELEN TAFT, H.T. (U. S. Department of Agriculture, 1913.) Syn., Miss Helen Taft. 15.
 HENRY IRVING, H.P. (Conard & Jones, 1907.) 19.
 HENRY M. STANLEY, T. (Dingee & Conard, 1879.) 15.
 HIAWATHA, H.Cl. (Walsh, 1904.) A. R. S. First Prize. 15, 16. Crimson Rambler × Carmine Pillar. 19.
 HIBBERTIA, C. (Buist, about 1830.) 21.
 HIGHLAND MARY, T. (Dingee & Conard, 1908.) 19.
 HOOSIER BEAUTY, H.T. (F. Dorner & Sons Co., 1915.) Syn., Liberty Beauty.
 IDEAL, H.T. (Jacob Becker, 1900.) 15, 19.
 IMPROVED RAINBOW, T. (Burbank, —) 15.
 INDIANA, H.T. (Hill, 1907.) 13. Rosalind Orr English × Frau Karl Druschki. 12.
 INTENSITY, H.T. (Dingee & Conard, 1908.) 19, 25.
 ISABELLA GRAY, N. (Gray, 1855.) Seedling from Cloth of Gold or Chromatella. 8, 17.
 ISABELLA SPRUNT, T. (Sprunt, 1866.) 15. Sport from Safrano. 17.
 IVORY, T. (American Rose Company, 1902.) Sport from Golden Gate. 3, 19. Syn., White Golden Gate. 15.
 JACKSONIA, C. (Buist, about 1830.) Syn., Hundred-leaved Daily. 21.
 JAMES SPRUNT, Cl.Bengal. (Sprunt, 1856.) 6, 9. Sport from Agrippina. 17.
 JANE, *Setigera* type. (Pierce, about 1850.) 1, 10.
 JANICE MEREDITH, Bengal. (Hill, 1903.) *Armosa* (Hermosa) × *La France*. 9.
 JERSEY BEAUTY, H.W. (Manda, 1899.) *R. Wichuraiana* × *Perle des Jardins*. 19.
 JESSICA, H.W. (Walsh, 1909.) 25.
 JOHN BURTON, W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Safrano. 19.
 J. S. FAY, H.P. (Walsh, 1908.) 15, 19.
 JUBILEE, H.P. (Henderson, 1898.) 1, 19. (1897.) 15. (Walsh, 1897.) Victor Hugo × Prince Camille de Rohan. 16.
 KALMIA, H.W. (Walsh, 1913.) 15.
 KEYSTONE, Mult. (Dingee & Conard, 1904.) 15, 19.
 KILLARNEY QUEEN, H.T. (J. A. Budlong & Son Co., 1909.) Sport. 15.
 KING DAVID, H.T. (California Rose Company, 1910.) 15.
 KING OF THE PRAIRIES, *Setigera* type. (Feast, 1843.) 1, 10.

- LA DETROIT, H.T. (Hopp, 1904.) 15. Mme. Caroline Testout × Bridesmaid.
19. (P. Breitmeyer's Sons, 1903.) 16, 25.
- LADY BLANCHE, H.W. (Walsh, 1913.) 15.
- LADY CROMWELL, H.T. (A. N. Pierson, Inc., 1912.) Sport of My Maryland. 15.
- LADY DOROTHEA, T. (Dunlop, 1898.) 16.
- LADY DUNCAN, Creeper, H.W. (Dawson, 1909.) *R. Wichuraiana* × *R. rugosa*.
- LADY GAY, W. (Walsh, 1905.) 15, 19. *R. Wichuraiana* × Bardou Job. 5, 16.
- LADY MARS, C.T. (California Rose Company, 1909.) 15.
- LA FIAMMA, H.W. (Walsh, 1909.) 15, 19. Syn., La Flamme. 15.
- LANDRETH'S CARMINE, N. (D. & C. Landreth, 1824.) Syn., Carmine Cluster. 10.
- LANDSLOWNE, H.T. (Leonard, registered 1914.) 15.
- LE VESUVE, Bengal-C. (Sprunt, 1858.) 3.
- LILLY ITO, Semp. (Hill, 1907.) 19.
- LITTLE SUNSHINE, Poly. (Hybridized by Alexander R. Cumming, Jr.; reg. A. R. S., 1915, by A. N. Pierson, Inc.) *R. multiflora nana* × Soleil d'Or.
- LITTLE WHITE PET, Poly. (Henderson, 1879.) 1, 13, 19.
- LOS ANGELES, H.T. (Howard, registered A. R. S., 1916.) Mme. Second Weber × Lyon Rose. 15.
- LUCILE, H.W. (Walsh, 1913.) 15.
- LUTEA, N. (Buist, —.) Syn., *R. Smithii*. 21.
- MADISON, T. (Hents, 1912.) 15.
- MADONNA, H.T. (Cook, 1908) 19. Lady Mary Fitzwilliam × —. 12.
Sport from White Lady. 19.
- MAGNAFRANO, H.T. (Van Fleet, 1905; intro. by Conard & Jones Co.) Magna Charta × Safrano. 19.
- MAID MARION, H.W. (Walsh, 1909.) 15.
- MAID OF HONOR, T. (Hoffmeister, 1899.) Sport of Catherine Mermet. 16, 19.
- MANDA'S TRIUMPH, W. (Manda, 1897.) 3. *R. Wichuraiana* × a Hybrid Perpetual. 19.
- MARION BRUNELL, C.T. (F. H. Brunell, Alabama, 1917.) Sport of Reine Marie Henriette. 15.
- MARION DINGEE, H.T. (Cook, 1889.) Caserta × General Jacqueminot × Marechal Niel × (Pierre Notting × Safrano). 19.
- MARK TWAIN, H.T. (Hill, reg. A. R. S. 1902.) 5, 13, 19, 25.
- MARSHALL P. WILDER, H.P. (Ellwanger & Barry, 1885.) 15, 16, 17.
- MARY HILL, H.T. (Hill, 1917.) Ophelia × Sunburst.
- MARY LOVETT, H.W. (Van Fleet, 1915.) *R. Wichuraiana* × Frau Karl Druschki.
- MARY WASHINGTON, Mult. Said to have been planted by George Washington on his estate at Mount Vernon and named by him in honor of his mother. 18.
Syn., Martha Washington. 15.
- MASTER BURKE, *R. Laurenciana*. (Feast, —.) 21.
- MAUD LITTLE, T. (Dingee & Conard, 1891.) 1.
- MAYFLOWER, T. (Hill, 1910.)
- MAY MILLER, H.T. (Hill, 1910.) Unnamed seedling × Paul Neyron. 5.
- MAY QUEEN, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) 19.
R. Wichuraiana × Mrs. de Graw. 16.
- MILADY, H.T. (Towill, 1913.) Richmond × J. B. Clark.
- MILKY WAY, H.W. (Walsh, 1909.) 15.
- MINNEHAHA, H.W. (Walsh, 1905.) 15. *R. Wichuraiana* × Paul Neyron. 5, 16, 19.
- MINNIE FRANCIS, T. (America, —.) 15.
- MISS BELL, T. (Int. and date unknown.) 10.
- MISS KATE MOULTON, H.T. (Monson, 1906.) 15. Mme. Caroline Testout × La France × Mrs. W. J. Grant (Belle Siebrecht). 15, 19.

- MISS MAUDY SHUBROOK, H.T. (California Rose Company, 1914.) Sport from Mrs. Aaron Ward. 15.
- MISS RUBY DENT, H.P. (California Rose Company, 1916.) Sport from Mrs. John Laing; also classed as a Hybrid Tea. 15.
- MISS SARGENT, T. (Mackenzie, of Philadelphia, about 185—.) 10.
- MILLE. MARTHE HYRIGOYEN, H.C. (Hill, 1902.) 25.
- MME. BOLL, H.P. (Boll, 1859.) 5, 6, 16, 17.
- MME. BYRNE, N. (Buist, 1850.) 10. Seedling of Lamarque. 21.
- MME. TRUDEAUX, H.P. (Boll, 1850.) 1, 17.
- MME. TRUDEAUX, D. (Boll, —.) 10.
- MONTROSE, H.T. (Cook, 1916.) 15.
- MRS. BAYARD THAYER, H.T. (Waban Rose Cons., reg. A. R. S., 1916.) 15.
- MRS. BELMONT TIFFANY, H.T. (Budlong, 1917; reg. A. R. S., 1917, and intro. by A. N. Pierson, Inc., 1918.) Sport of Sunburst.
- MRS. CHARLES BELL, H.T. (A. N. Pierson, reg. A. R. S., 1917.) Sport of Radiance.
- MRS. CHARLES RUSSELL, H.T. (Montgomery, 1913.) "Mme. Abel Chatenay, Marquise Litta de Breteuil, Mme. Caroline Testout, Mrs. W. J. Grant (Belle Siebrecht), General MacArthur, and three seedlings resulting from these crosses are all combined to produce Mrs. Charles Russell." 15.
- MRS. CHAS. DINGEE, H.T. (Dingee & Conard, —.) 15.
- MRS. CHAS. GERSDORFF, Cl.H.T. (Gersdorff, reg. A. R. S., 1916.) White climbing rose × Killarney.
- MRS. CLEVELAND, H.P. (Gill, 1897.) 1, 13, 19.
- MRS. DE GRAW, B. (Burgess, 1885.) 16.
- MRS. F. F. THOMPSON, H.T. (Totty, 1915.) Sport of Mrs. Geo. Shawyer. 15.
- MRS. HENRY WINNETT, H.T. (Dunlop, reg. A. R. S., 1917.) Mrs. Charles Russell × Mrs. George Shawyer. 15.
- MRS. J. PIERPONT MORGAN, T. (May, 1895.) 15, 16. Sport from Mme. Cusin. Syn., Mrs. Pierpont Morgan. 15.
- MRS. LOVETT, H.W. (Dr. Van Fleet, —.) 15.
- MRS. M. H. WALSH, H.Cl. (Walsh, 1911.) Syn., Mrs. Walsh. 15. Gold Medal of A. R. S., 1911.
- MRS. MOORFIELD STOREY, H.T. (Waban Rose Conservatories, reg. A. R. S., 1915.) General MacArthur × Joseph Hill.
- MRS. OLIVER AMES, H.T. (May, 1902.) 15, 19. Sport from Mme. Cusin. 16.
- MRS. OFIE, T. (Bell & Son, 1877.) 17.
- MRS. PIERCE, Setigera type. (Pierce, about 1850.) 10, 17. Syn., Mrs. Hovey. 22.
- MRS. POTTER PALMER, H.T. (Breitmeyer, 1909.) 19, 25.
- MRS. R. B. MELLON, H. Spin. (Elliott Nursery, 1917.) Seedling. 15.
- MRS. ROBERT GARRETT, H.T. (Cook, 1900.) Caserta × F. E. Verdier.
- MRS. ROBERT PEARY, Cl.H.T. (Dingee & Conard, 1898.) Sport from Kaiserin Augusta Victoria. 15.
- MRS. SARAH YEATS, H.T. (Originated and reg. by Yeats, 1916; intro. by A. L. Randall Co., 1917.) 15.
- MRS. THEODORE ROOSEVELT, H.T. (Hill, 1904.) Sport of La France. 19.
- MRS. W. C. WHITNEY, H.T. (May, 1894.) 11, 16.
- MRS. WM. R. HEARST, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1916.) Sport of My Maryland. 15.
- MURIEL MOORE, H.T. (Moore, 1916.) Sport of My Maryland.
- MY MARYLAND, H.T. (Cook, 1903.) Madonna × Enchanter.
- NEVIA, Setigera type. (Feast, 1843.) 10.

- NEW CENTURY, H.Ru. (Van Fleet, 1900; intro. by Conard & Jones Co.) *R. rugosa* × *Clotilde Soupert*.
- NEWPORT FAIRY, H.W. (Gardner; intro. by Roehrs, 1908.) 12, 19.
- NILES COCHET, T. (California, —) 15.
- NORMA, H.T. (Dingee & Conard, 1904.) 4, 19, 25.
- NORTHERN LIGHT, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) *Wichuraiana* hybrid. 19.
- OAKMONT, H.P. (May, 1893.) 15, 19.
- OLD BLUSH, N. (Noisette, 1817.) 2.
- OLIVIA, H.T. (Hill, 1907.) 15, 19. Syn., *Oliva*. 15.
- OPHELIA SUPREME, H.T. (Dailedouze Bros.; reg. Soc. American Florists, 1917.) Sport. 24.
- ORIOLE, H.T. (California Rose Company, 1910.) 15.
- PALLIDA, *Setigera* type. (Feast, 1843.) 10, 17, 20.
- PANAMA, H.P. (Hill, 1908.) Paul Neyron × seedling of Joseph Hill. 5.
- PANAMA, H.T. (Cook, 1913.) *Dreuschia* × unnamed pink seedling.
Awarded Silver Medal, A. R. S., 1915.
- PAN-AMERICA, H.T. (Henderson, 1902.) American Beauty × Mme. Caroline Testout. 19.
- PARADISE, H.W. (Walsh, 1907.) 15, 19.
- PAUL DE LONGPRE, H.T. (Hill, 1906.) 19.
- PEARL QUEEN, W. *R. Wichuraiana* × Mrs. de Graw. 16.
- PEARL RIVERS, T. (Dingee & Conard, 1890.) 1, 16.
- PERPETUAL MICHIGAN, *Setigera* type. (Feast, about 1843.) 10. Everblooming Prairie Queen may be a synonym.
- PHILADELPHIA, Ramb. Crimson Rambler × Victor Hugo. 16, 19. Probably the same as Philadelphia, H.Mult. (Van Fleet, 1904; intro. by Conard & Jones Co.) Syn., Philadelphia Crimson Rambler. 15.
- PILLAR OF GOLD, T. (Conard & Jones, 1909.) 19.
- PINK CHEROKEE, Lev. (California, 1887.) *R. levigata* × *R. indica*. 15.
- PINK FRAU KARL DRUSCHKI, H.P. (California Rose Company, 1910.) Sport. 15.
- PINK OPHELIA, H.T. (Howard & Smith, 1916.) Sport from Ophelia.
- PINK PEARL, H.W. (Manda, 1901.) *R. Wichuraiana* × Meteor.
- PINK ROAMER, H.W. (Manda, 1898.) 19. Syn., Pink Rover. 15.
- PINK SOUPERT, Poly. (Dingee & Conard, 1896.) 1.
- POM POM, H.Cl. (U. S. Department of Agriculture, 1910.) 25. Crimson Rambler *R. Wichuraiana*. 15.
- PRESIDENT TAFT, H.T. (McCullough, 1908.) Syns., President W. H. Taft; Taft Rose; Wm. H. Taft. 15.
- PRETTY AMERICAN (*R. Laurenciana*). (Boll, 183- or 185-) 10.
- PRIDE OF THE SOUTH, *Setigera* type (America, —) 15.
- PRIDE OF WASHINGTON, *Setigera* type. (Pierce, about 185-) 7, 10, 19.
- PRIMROSE, T. (Dingee & Conard, 1908.) 19.
- PRINCESS BONNIE, T. (Dingee & Conard, 1897.) 1. Bon Silene × Wm. F. Bennett. 19.
- PRINCESS ENA, Poly. (H. B. May, 1907.) Sport of Baby Crimson Rambler. 26.
- PRISCILLA, H.T. (Henderson, 1910.) Kaiserin Augusta Victoria × Frau Karl Druschki. 5, 25.
- PROF. C. S. SARGENT, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Souv. d'Auguste Metral. (Not the same as Sargent.) 19.
- PURITY, H.W. (Hoopes, Bro. & Thomas Co., 1917.) Unnamed seedling × Mme. Caroline Testout. Silver Medal of A. R. S., 1915.

- QUEEN BEATRICE, H.T. (Credited to Kramer, 1907, by Good & Reese Co.) 15.
(Dingee & Conard, 1906.) 15.
- QUEEN OF EDGELY, H.P. (Floral Exchange, 1902.) 19. (Floral Exchange, 1897.)
Sport from American Beauty. Syn., Pink American Beauty. 15.
- QUEENS SCARLET, Bengal. (Hallock & Thorpe, 1880.) 15, 17. Syn., Red
Hermosa. 15.
- RADIANCE, H.T. (Cook, 1908.) Enchanter \times Cardinal. Awarded Silver
Medal of A. R. S., 1914. 19.
- RAINBOW, T. (Sievers, 1891.) Sport from Papa Gontier. 3, 19. (Dingee &
Conard, 1891.) 2. Sievers was probably the originator.
- RAMONA, Lev. (Dietrich & Turner, 1913.) Sport from Pink Cherokee. Syn.,
Red Cherokee. 15.
- RED RADIANCE, H.T. (A. N. Pierson, Inc., 1916.) 15.
- RED RADIANCE, H.T. (Gude Bros., 1916.) Sport. Darker than Pierson's. 15.
- REGINA, H. Ramb. (Walsh, 1916.) 15.
- RELIANCE, H.T. (Hill, 1910.) 4, 19. Etoile de France \times Chateau de Clos
Vougeot. 15.
- RENA ROBBINS, H.T. (Hill, 1911.) Paul Neyron \times Mme. Jenny Gillemot.
- RHEA REID, H.T. (Hill, 1908.) American Beauty \times red seedling. 12, 19.
- RICHMOND, H.T. (Hill, 1905.) Lady Battersea \times Liberty. 19. Syn., Ever-
blooming Jack Rose. 15.
- ROBERT CRAIG, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuriana*
 \times *Beaute Inconstante*. 19.
- ROBERT HELLER, T. (Hill, 1911.)
- ROBERT SCOTT, H.T. (Robert Scott & Son, 1901.) 15. Merveille de Lyon \times
Mrs. W. J. Grant (Belle Siebrecht). 19.
- ROBIN HOOD, H.T. (Hill, 1912.)
- ROSALIE, T. (Ellwanger & Barry, 1884.) Seedling from Marie Van Houtte. 17.
- ROSALIND, H.T. (F. R. Pierson Co., reg. A. R. S., 1918.) Sport of Ophelia. 15.
- ROSALIND ORR ENGLISH, H.T. (Hill, 1905.) 3, 15. Mme. Abel Chatenay \times
Papa Gontier. 19.
- ROSA ACICULARIS. (Lindley, 1820.) 25.
- ROSA MICROPHYLLA. (Lindley, 1820.) 25.
- ROSA MOYESII, Species. (Wilson, from China, —.) 25.
- ROSA SERICEA. (Lindley, 1820.) 25.
- ROSA SPINOSISSIMA HYBRIDA. (Elliott Nursery, —.) 15.
- ROSA WICHURIANA VARIEGATA. (Conard & Jones Co., —.) 15.
- ROSA XANTHINA. (Lindley, 1820.) 25.
- ROSEMARY, H.T. (Hill, 1907.) 15, 19.
- ROSE PREMIER, H.T. (Hill, reg. A. R. S., 1917.) Ophelia \times Mrs. Charles Russell.
- ROSE QUEEN, H.T. (Hill, 1911.)
- ROSERIE, H. Ramb. (R. Witterstætter, 1917.) Sport from Tausendschön. 15.
Syn., Rosary. 15.
- ROYAL CLUSTER, Ramb. (Conard & Jones Co., 1899.) Armosa (Hermosa) \times
Dawson. 19, 25.
- RUBY GOLD, T. (O'Connor, 1892.) Sport from a graft of Catherine Mermet
on Marechal Niel. 16.
- RUBY QUEEN, H.W. (Van Fleet, 1899; intro. by Conard & Jones Co.) *R.*
Wichuriana \times Queens Scarlet. 16.
- RUGOSA MAGNIFICA, H. Ru. (Van Fleet, 1905; intro. by Conard & Jones Co.)
R. rugosa \times Ards Rover.
- RUSSELLIANA, Setigera type. 21. (Russel, 1900.) 25. Syns., Russell's Cottage;
Russel's Cottage. 15. Syns., Scarlet Grevillea; Cottage Rose. 21.

- RUTH VESTAL, Cl.T. (Vestal & Sons, 1906.) Syn., Climbing Bride. 15.
 SANTA ROSA, Bengal. (Burbank, 1900.) 13, 19.
 SARAH ISABELLE GILL, T. (Gill, 1897.) 19.
 SARGENT, H.W. (Dawson, 1910.) *R. Wichuraiana* × Crimson Rambler × Baroness Rothschild.
 SATISFACTION, N. (California Rose Company, 1915.) 15.
 SEPTEMBER MOON, H.T. (Turner, 1915.) Sport from Mme. Paul Euler. 15.
 SETINA, Cl.B. (Henderson, 1879.) Sport of Armosa (Hermosa). Syns., Climbing Hermosa; Cetina. 9, 15, 17, 19.
 SHEPHERD'S ORIOLE, N. (T. B. Shepherd Company, 1905.) 15.
 SILVER MOON, H.W. (Van Fleet, 1910.) *R. Wichuraiana* × *R. laevigata* (Cherokee Rose). 15.
 SILVIA, H.T. (F. R. Pierson Co., reg. A. R. S., 1918.) Sport of Ophelia. 15.
 SIR THOMAS LIPTON, H.R.U. (Van Fleet, 1900; intro. by Conard & Jones Co.) *R. rugosa* × Clotilde Soupert. 19.
 SNOWBALL, Poly. (Walsh, 1901.) 19, 25.
 SNOWDRIFT, H.Cl. (Walsh.)
 SNOWDRIFT, W. (Smith, 1914.) 15.
 SNOWFLAKE, T. (Strauss & Co., Washington, D. C., 1890.) 15, 17.
 SOUTH ORANGE PERFECTION, W. (Manda, 1899.) 3. *R. Wichuraiana* × Mme. Hoste. 19.
 SOUV. DE HENRY CLAY, Scotch hybrid. (Boll, 1854.) 17.
 SOUV. OF WOOTTON, H.T. (Cook, 1888.) Bon Silene × Louis Van Houtte. Said to be the first Hybrid Tea rose raised in the United States. 19. Syns., Souv. de la Wootton; Souv. de Wootton. 15.
 SPECTACULAR, H.T. (Elliott, 1912.) Syn., Striped Killarney. 15.
 SUMMER JOY, H.Cl. (Walsh, 1911.) 15.
 SUNBEAM, T. (California Rose Company, 1908.) 15.
 SUNSET, T. (Henderson, 1884.) 2, 9. Sport from Perle des Jardins. 9. (1883.) 16, 19.
 SUPERBA, Setigera type. (Feast, 1843.) 10, 16, 17, 20.
 SWEETHEART, H.W. (Walsh, 1903.) *R. Wichuraiana* × Bridesmaid. 15, 16, 19.
 SWEET MARIE, H.T. (California Rose Company, 1915.) Sport from Mrs. G. W. Kershaw. 15.
 TENNESSEE BELLE, H.Cl. (America, —.) 15.
 THE OREGON, H.T. (Hill, date not given.) Liberty × unnamed seedling. 12.
 THORA, H.T. (Burton, 1914.) 15.
 TRIUMPH, H.T. (E. G. Hill Company, 1906 or 1907.) 3, 13. Gruss an Teplitz × General MacArthur. 25.
 TRIUMPHANT, Setigera type. (Pierce, 1850.) 1, 10, 16.
 TROUBADOUR, H.W. (Walsh, 1911.) 15.
 UNCLE JOHN, T. (Thorpe, 1904.) 15, 19.
 UNIVERSAL FAVORITE, W. (Manda, 1899.) 3. *R. Wichuraiana* × American Beauty. 19.
 URANIA, H.Cl. (Walsh, 1902.) A. R. S. Special Newbold Fund Prize.
 URANIA, H.P. (Walsh, 1906.) 3. (1905.) Seedling from American Beauty. 16. American Beauty (Mme. Ferd. Jamain) × Susanne Marie Rodocanachi. (Mme. Rodocanachi.) 19.
 VAUGHAN'S WHITE BABY RAMBLER, Poly. (Vaughan, 1916.) 15.
 VICK'S CAPRICE, H.P. (Vick, 1893.) 1. (1889.) 15. Sport from Archduchess. Elizabeth d'Austrie. 15, 16, 19.
 VIRGINIA, T. (Dingee & Conard, 1894.) 1.

- VERIDIFLORA**, Bengal. (Originated in Baltimore, Md., about 1850.) 10, 19.
 (Harrison, of Baltimore, Md., 1856.) 1. (Rambridge and Harrison, 1856.)
 15. Syn., Green Rose. 15.
WABAN, T. (E. M. Wood & Co., 1891.) Sport of Catherine Mermet. 16, 19.
WASHINGTON, Bengal. (D. & C. Landreth, about 1824.) 10.
WASHINGTON, N. (Stewart, of Philadelphia, Pa., about 185-.) 10, 17.
WEDDING BELLS, Ramb. (Walsh, 1906.) 19. Seedling from Crimson Ramb. 16.
WELLESLEY, H.T. (Montgomery, 1904.) Liberty × Bridesmaid. 16.
WEST GROVE, H.T. (Dingee & Conard, registered 1914.) Liberty × Kaiserin
 Augusta Victoria.
WHITE COCHET, T. (Cook, 1896.) Sport. 16, 19.
WHITE DAWSON, H. Mult. (Ellwanger, 1901.) 19.
WHITE KILLARNEY, H.T. (Waban Rose Conservatories, 1909.) 15, 19.
WHITE SHAWYER, H.T. (Totty, 1915.) Sport. 15.
WHITE STAR, H.W. (Manda, 1901.) Jersey Beauty × Manda's Triumph.
WHITE TAUSENDSCHÖN, H.Cl. (J. Roehrs Co., probably in 1918.) Sport. 15.
WINONA, H. Ramb. (Walsh, 1913.) 15.
WINTER GEM, T. (Childs, 1898.) 15.
WM. C. EGAN, H.W. (Dawson, 1900.) *R. Wichuraiana* × General Jacqueminot.
 15.
WM. R. SMITH, T. (Smith, 1908; intro. by Peter Henderson & Co., 1908.)
 Maman Cochet × Kaiserin Augusta Victoria. Syns., Jeannette Heller,
 Chas. Dingee, Maiden's Blush, and President Wm. R. Smith. 4, 15, 19.
WM. K. HARRIS, W. (Hoopes, Bro. & Thomas Co., 1903.) 15, 19.
WOODLAND MARGUERITE, N. (Pentland, 1859.) 17.
W. T. DREER, W. (Hoopes, Bro. & Thomas Co., 1903.) 4, 19.
YELLOW PRESIDENT CARNOT, H.T. (California Rose Company, 1910.) 15.

The Editor particularly requests information or corrections to aid in making this list accurate. In sending such, correspondents are requested to give exact details, so far as possible.

A catalogue of roses in American commerce has been compiled, and is in process of careful revision and verification. It will include name, origin if ascertainable, class, color, fragrance, form, petalage, bloom habit, plant habit, disease liability. Accurate information for this work is desired.

The Work of The American Rose Society

As Reported by the Secretary

"Progress and service" has been the watchword of the American Rose Society during the year 1917. The Society has endeavored in every way possible to give its members full value for membership. Its officers feel that this has been done. The 1917 American Rose Annual was the finest yet issued by the Society, and it was appreciated by rose-lovers all over the United States.

The Rose Festival in Philadelphia was the first large show devoted exclusively to roses ever held in the United States, and it was a wonderful success from the viewpoint of rose display. All of the exhibits were educational as well as attractive. The exhibition of roses at the Cleveland Flower Show in November also reflected great credit on American rose-growers, and the Society appreciates the coöperation of the managers at Cleveland who made possible the splendid display.

Membership in the Society has increased wonderfully during the year. On January 1, 1918, the membership was approximately 2,000.

During the year, the Society sent to all its members a Reading-Course Bulletin on Roses prepared by Dr. A. C. Beal, of the Department of Floriculture at Cornell University, and several other similar pamphlets are planned for distribution during the coming year.

The chaotic condition into which the terrible war has plunged our country has had its influence on the progress of rose-growing in America. There are those who cry down all attempts to continue the culture of flowers at this time, claiming they are not essential to the successful conduct of the war. Flowers play a wonderfully important part in the life of any people, and there is nothing more symbolic of purity, of inspiration and cheer in our National crisis than the rose. An all-wise Father has given us the beauty and perfection of this flower to brighten our daily lives, and surely there never has been a time when the brightness and cheer were more needed than now. It is believed that the hysteria of the moment into which many of our American people were plunged because of the war, has begun to give way to a calm realization that we who are at home have a normal life to live, and that life cannot be normal if all that is beautiful is eliminated. Flowers play just as important a part in the life of a nation in war as in peace!

The National Rose Festival in Philadelphia, March 20-23, 1917

The first National Rose Festival opened March 20 at the First Regiment Armory, Philadelphia. The interior of the Armory was well suited for an exhibition of this kind, although its 22,000 square feet of floor-space was hardly sufficient to exhibit to advantage the wonderful display of blooms.

The general effect of the show was most artistic and well arranged. The leading feature was the garden of the American Rose Society laid out in the center of the hall. This was of the Italian Renaissance style, with two lines of massive white pillars, with overhanging latticework, on which were trained *Tausendschön* and other rambler roses. There was a pool in the center, with beds of roses lining the sides and grass-walks surrounding them. Other beds of roses and walks were here, and the entire garden sloped gently to all sides. Statuary

was placed about in a most effective way, enhancing the beauty of the garden. The roses used were principally ramblers and the baby type of Tausendschön and Hiawatha.

The exhibition was formally opened by Mayor Smith, who welcomed the American Rose Society to Philadelphia and felicitated the organization on this initial effort of holding a Rose Festival. The Mayor was followed by the president of the Chamber of Commerce, Mr. Ernest T. Trigg, who seconded the Mayor's remarks.

The cut-roses were staged in the Society's new vases of white wicker, with green-painted liners. They were at once the most handsome and practical flower-receptacles ever used for the purpose. Geometrical spaces had been laid out on the floor with sheet-moss, and in these were arranged the various classes. The entries, of 100 blooms each, were superb, the best five vases being Hadley, Mrs. Russell, Ophelia, Hoosier Beauty, and American Beauty. One hundred Mavourneen were splendid.

The christening of Edward Towill's pink seedling in honor of Mrs. Edward T. Stotesbury was the opening feature the first night.

The various exhibits which lined the sides of the hall were of great interest to the visitors. It is regretted that space limitations prevent describing them in detail.

Owing to bad weather and the impending war situation the attendance was not sufficient to make the exhibit a financial success, and the Society appreciates the generosity of those guarantors who came forward to meet the deficit.

Prizes were awarded in line with the premium list, and as published in the trade papers.

The dinner tendered to the judges and visiting members of the trade was given at the Bellevue-Stratford Hotel. There were over sixty in the party. After a very good menu, President Pennock called on Robert Craig, who recalled the past and predicted a great future for the Queen of Flowers. William F. Gude spoke of the melting-pot where, at these gatherings, experiences were thrown in and new ideas and inspirations created. He spoke in glowing terms of the exhibition. W. F. Therkildson, John Dunlop, George Asmus, and Admiral Ward all spoke in praise of the wonderful display and expressed their appreciation of the efforts President Pennock had made for the success of the exhibition.

Aside from the money prizes, there were awarded American Rose Society medals and certificates, as follows: Golden Emblem (86 points), Henry A. Dreer, Inc., a silver medal; Golden Gem (81 points), Edward Towill, certificate; pink seedlings (83 points), Joseph Heacock Company, certificate; shell-pink seedlings (82 points), Bedford Flower Company, certificate. The judges recommended the award of a gold medal to Henry A. Dreer, Inc., for their display of roses.

The guarantors whose support made possible this great show were as follows:

George Asmus, S. A. Anderson, W. A. Burpee, George Burton, Alfred Burton, John Burton, H. H. Battles, Louis Burk, P. Breitmeyer, M. H. Beckley, Fred Burki, Budlong Rose Company, Emil Buettner, H. Bayersdorfer & Co., Robert Craig, L. B. Coddington, Cleveland Flower Show Association, Conard & Jones Co., August Doemling, H. A. Dreer, John H. Dunlop, W. H. Elliott, A. Farenwald, M. Franklin, Florex Gardens, Peter Fisher, C. H. Grakelow, Gude Brothers Company, J. M. Gasser Company, Victor Groshens, W. K. Harris, Joseph Heacock, J. J. Havermehl's Son, E. G. Hill Company, A. M. Henshaw, Benjamin Hammond, Hents & Nash, Inc., Kasting Company, Knobie Brothers, King Construction Company, W. A. Leonard, Lord & Burnham, H. F. Michell, Stephens Mortensen, Meyers & Samptman, Harry O. Mav, Samuel Murray, Daniel MacRorie, Leo Niessen, W. J. Palmer, S. S. Pennock-Meehan Company, E. Allen Peirce, A. N. Pierson, Inc., Pennock Brothers Company, Poehlmann Brothers Company, S. J. Reuter & Son, W. L. Rock Flower Company, A. B. Scott, Robert Scott, Charles Schoenhut, Edward Stroh, S. S. Skidelsky, Robert Simpson, South Park Floral Company, George C. Thomas, Edward Towill, C. H. Totty, Vaughan's Seed Store, P. Welch, Jacob B. Weise, Admiral Aaron Ward, John Welch Young.

Annual Meeting in Philadelphia, Wednesday, March 21, 1917

The eighteenth annual meeting of the American Rose Society was held in conjunction with the National Rose Festival in Hotel Bellevue-Stratford at 2 P.M., March 21, with President S. S. Pennock presiding. The address of the President and reports of the Secretary and Treasurer were read as recorded later. The central committee of the Society's Rose Test-Garden submitted report as follows:

The undersigned, having been designated to suggest "A form of annual report from the Test-Garden Committee to the central committee of the American Rose Society," submit the following:

The Test-Garden Committees appointed by the Executive Committee shall be composed of three members living in or near the locality where the garden is situated, so that frequent inspections can easily be made by individual members of the committee. The official inspections of the Committee shall take place three times a year, viz., at the best period of first bloom, in midseason, and at the time of best autumnal bloom. The actual dates of these inspections must necessarily vary with the localities and weather conditions. The results will be included in one annual report to reach the central committee not later than November 1.

To have some uniform basis of comparison, the following terms shall be used in describing growth of plants and character of bloom. The following names of certain well-known Hybrid Tea varieties are given as examples:

Growth.—Very vigorous (example, Gruss an Teplitz); tall, slender (Lady Ursula); tall, bushy (Jonkheer J. L. Mook); moderate, slender (Chateau de Clos Vougeot); moderate, bushy (Mrs. Aaron Ward); low-growing, slender (Mme. Segond Weber); low-growing, bushy (Mme. Ravary).

Character of bloom.—Single, up to twelve petals (example, Irish Elegance); semi-double, twelve to twenty petals (Lady Pirrie); double, twenty to thirty petals (Radiance); very double, over thirty petals (La France).

The terms "very good," "good" or "indifferent" to be used in describing other qualities of plant or bloom wherever applicable.

All test-gardens appear to grow most of the varieties named below, if the class of rose mentioned is grown at all. The observations of these typical roses should, therefore, be recorded with special care as they will serve as a means of comparison between localities. But this shall not be construed as limiting the reports to the roses or classes named, nor cause the omission of any good quality or defect which may be deemed worthy of note.

ROSES IN GENERAL USE IN TEST-GARDENS

Hybrid Perpetuals.—Anna de Diesbach, Baroness Rothschild, Clio, Frau Karl Druschki, General Jacqueminot, Hugh Dickson, Mme. Gabriel Luiset, Marie Baumann, Mrs. John Laing, Mrs. R. G. Sharman Crawford, Oskar Cordel, Paul Neyron, Pride of Waltham, Prince Camille de Rohan, Ulrich Brunner.

Hybrid Teas.—Augustine Guinoisseau, Chateau de Clos Vougeot, Cynthia Forde, Duchess of Wellington, General-Superior Arnold Janssen, General MacArthur, George C. Waud, Gruss an Teplitz, Gustav Grunerwald, Kaiserin Augusta Victoria, Killarney, Mrs. Aaron Ward, Ophelia, Prince de Bulgarie, Richmond, Konigin Carola, La France, La Tosca, Lady Alice Stanley, Lady Ashtown, Mme. Abel Chatenay, Mme. Caroline Testout, Mme. Jules Groles, Mme. Leon Pain, Mme. Ravary, Mme. Segond Weber, Mrs. Theodore Roosevelt, Pharisaeer, Radiance, Viscountess Folkestone.

Teas.—Maman Cochet, Souv. de Pierre Notting, Wm. R. Smith, Marie Van Houtte, White Maman Cochet.

Pernetiana.—Louise Catherine Breslau, Mme. Edouard Herriot, Willowmere, Lyon, Mrs. F. W. Vanderbilt.

Rugosa.—Amelie Graveraux, Blanc Double de Coubert, Mme. Georges Bruant, Agnes Emily Carman, Conrad Ferdinand Meyer.

Dwarf Polyanthas.—Cecile Brunner, Jessie, Mme. Norbert Levavasseur, Clotilde Soupert, Mrs. Wm. H. Cutbush.

The form of report for dwarf (bush roses) and, so far as applicable, for standard and climbers, shall be as follows:

Character and depth of soil.—Fertilisers used. Irrigated or not. Fungicides used. Antiseptic remedies used. Other remedies used.—Since date of last report.

Character of pruning.—Severe? Moderate? Plants left unpruned except as to dead wood?

Plants.—In what locality raised? How long planted in test-garden. On what stock budded? Any marked tendency to mildew, black-spot, or die back? Other diseases? Foli-

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age (plentiful; sufficient; sparse)? Hardy for the locality? Growth (using terms above defined).

Blooms	Early	Mid.	Late
Fullness (as above defined)	.....	.....	.....
Keeping qualities of plant indoors (very good, good, indifferent)	.....	.....	.....
Color (very good, good, indifferent)	.....	.....	.....
Steadfastness of color (very good, good, indifferent)	.....	.....	.....
Fragrance (very good, good, indifferent)	.....	.....	.....
Freedom of bloom: Floriferous? Shy?	.....	.....	.....
Any marked tendency to			
Blind shoots	Yes or no.	.....	.....
Drooping head	Yes or no.	.....	.....
Imperfect buds	Yes or no.	.....	.....
Difficulty in opening	Yes or no.	.....	.....
Undue shortness of stem	Yes or no.	.....	.....

General value of plant and flower for garden use; very good, good, or indifferent.

AARON WARD
LOUIS J. RUTHER
WALLACE R. PIERSON

This report was received and referred to the Executive Committee for adoption.

F. L. Mulford, chairman of the Committee on Nomenclature offered a report which, after discussion, was referred to the Joint Committees on Nomenclature and Registration for consideration.

Capt. George C. Thomas, Jr., chairman of the committee appointed by the Society to draw up plans for outdoor rose exhibits, reported as follows:

Owing to the shortness of time, it is impossible for me to give you a detailed report, but I make the following suggestions for your annual meeting:

First, that your committee considers it absolutely necessary, if the American Rose Society is to enlarge its membership and work for the good of the amateur rose-grower, that it should encourage the giving of rose shows of outdoor roses throughout the country—(a) by offering silver medals, bronze medals, and certificates as prizes; (b) by arranging a standard by which roses in competition shall be judged; (c) by having the Executive Committee or a subcommittee of the same pass on the names of men to judge at such shows.

Second, your committee considers it more important to have a large number of small shows run by amateurs throughout the country than to have a large show held at one time and one place each year, although when such shows are properly guaranteed by persons capable of running such an undertaking, the American Rose Society should aid the same to the fullest degree.

Third, it is suggested that this program be sent to the various magazines and papers devoted to horticulture, etc., as a news item.

As a suggestion of basis to work upon it would seem to the committee that the holding of shows should be used also in increasing the membership of the Society and the revenue of same—(a) by only giving the right to hold a show under the auspices of the Society to such organizations as shall have, say, ten persons, who are also members of the Society; (b) by regulating the number of medals and certificates donated by the Rose Society on a scale with the number of members of the Rose Society belonging to the organization in question; (c) by charging a nominal fee to organizations holding such shows.

For the running of amateur shows, Dr. Huey has had a report made by Miss Elisabeth Cryer, an amateur who has successfully run the Lansdowne show for a number of years.

It is suggested that this report be compared with other reports which could be secured, for instance, from the Syracuse Rose Society and other organizations which have held shows, and a list of rules and suggestions for the giving of shows by societies which have not heretofore held them, established.

Respectfully submitted,

GEORGE C. THOMAS, JR.

This report was received with favor and referred to the Executive Committee for action.

A committee, consisting of J. Horace McFarland, George C. Thomas, Jr., and Wallace R. Pierson, appointed to prepare a uniform form for the registration of new roses, suggested the following blank:

AMERICAN ROSE SOCIETY—ROSE REGISTRATION BLANK

Proposed name of rose: (Single name preferred; double and triple names subject to reduction or declination. Be sure name proposed has not been previously used.)

Class of rose: (Whether Hybrid Tea, Hybrid Perpetual, Hybrid Wichuraiana, Hybrid Rugosa, or other class.)

Parentage of rose: (State seed-parent first; pollen-parent second. If either is an unnamed seedling, give its parentage if possible.)

Hybridised by _____ Introduced to commerce by _____

Description.—Habit of plant; character of foliage; freedom of growth; hardiness; flower; color; form; fragrance; bud; petalage; freedom of bloom; lasting quality.

The rose is similar to _____, but is different in _____, and superior for the following reasons: _____.

This form was adopted by the Society.

President Pennock read the resolution passed at the annual meeting of 1916, calling for an increase in the number of members of the Executive Committee from six to nine, the object being to elect representatives from amateur membership, who, by their interest, would tend to increase the membership of the Society. This resolution was adopted by the Society's vote.

The election of officers next followed. Benjamin Hammond was nominated for president for the year next ensuing from July 1, 1917, and unanimously elected. The other officers elected for the year were: Vice-president, William L. Rock, Kansas City, Mo.; Secretary, E. A. White, Ithaca, N. Y.; Treasurer, Harry O. May, Summit, N. J. Executive Committee, for three years, Admiral Aaron Ward, Roslyn, N. Y., to succeed himself; Jesse A. Currey, Portland Heights, Ore., George C. Thomas, Jr., Chestnut Hill, Philadelphia; for two years, William J. Keimel, Elmhurst, Ill.; for one year, John H. Dunlop, Richmond Hill, Ontario, Canada. The three last names were in addition to the six members already on the Executive Committee, thus increasing the number to nine, as provided by the recent change in the Constitution. The Executive Committee for 1918 is, therefore, recorded as follows: Wallace R. Pierson, Cromwell, Conn., term expires 1918; Robert Simpson, Clifton, N. J., term expires 1918; John H. Dunlop, Richmond Hill, Ontario, Canada, term expires 1918; E. Allan Peirce, Waltham, Mass., term expires 1919; Robert Pyle, West Grove, Pa., term expires 1919; W. J. Keimel, Elmhurst, Ill., term expires 1919; Admiral Aaron Ward, Roslyn, N. Y.,* term expires 1920; Jesse A. Currey, Portland Heights, Ore., term expires 1920; George C. Thomas, Jr., Chestnut Hill, Philadelphia, term expires 1920. Honorary Vice-presidents: E. M. Mills, D.D., Syracuse, N. Y., J. Horace McFarland, Harrisburg, Pa., Dr. Robert Huey, Philadelphia, W. G. McKendrick, Toronto, Canada.

It was voted and carried that the editor and the advertising manager of the American Rose Annual be made ex-officio members of the Executive Committee; it was also voted that the retiring President be made a member of the Executive Committee for one year following his retirement. It was unanimously voted that the Society extend to J. Horace McFarland of Harrisburg, Pa., honorary life membership in the Society in appreciation of his splendid work on the Rose Annual and for his active interest in increasing the amateur membership in the Society.

Following the election of officers, an invitation was received from John Young, secretary of the Society of American Florists and Ornamental Horticulturists, inviting the American Rose Society to join that organization in exhibiting at the National Flower Show to be held in St. Louis, Mo., April 6 to 15, inclusive, 1918. The Society of American Florists and Ornamental Horticulturists suggested "That the American Rose Society be permitted to under-

*Admiral Ward resigned from the Executive Committee July 1, 1917, because of the present war conditions, and Louis J. Reuter was appointed to succeed him.

write the schedule for the rose classes to the extent of \$2,500; that they be responsible for the same and in return will participate in any possible profits from the flower show on a *pro rata* basis after the balance of the premium list and expenses are paid. Should the exhibition show a loss, the Rose Society will assume a *pro rata* share of said loss."

Letters were read from St. Louis Florists' Club and other organizations, giving formal invitations to the Society to come to St. Louis. A general discussion ensued on this matter, with the result that it was voted to go to the city of St. Louis for the annual meeting and exhibition in 1918, as per terms proposed by the Society of American Florists.

Invitations were received from the Hartford Convention and Publicity Bureau affiliated with the Hartford Chamber of Commerce and the Connecticut Horticultural Society, the Hartford Florists' Club, and the Superintendent of Hartford Parks, for the Society to hold an outdoor meeting in Hartford in June, 1918. The Society voted to accept this invitation.

The reports of the officers follow, in abbreviated form:

PRESIDENT'S ADDRESS

The membership of the Society has materially increased in both the active and associate classes. In addition to a healthy growth in the active membership, there has resulted an increase in associate membership to at least twenty times the number recorded one year ago, and this increase is continuing. I am glad to say.

I should like to recommend a readjusting of the membership dues, not only the active but the associate and affiliated as well. Instead of having two classes as we now have, active and associate memberships, I would suggest we merge them and have only the active membership. This would give the associate member, who at present is not eligible to vote or take part in any proceedings, all the rights of membership. Also, instead of active members paying \$3 annually, and associates \$1, that the dues for all be \$2.

Our affiliated members at present are paying 25 cents. This I think, should be \$1, they receiving the Annual and any other literature which may be issued; also admissions to any shows; these Annuals to be shipped in bulk to the affiliated society, and not distributed individually by the Rose Society.

The favorable reception accorded to the 1916 Rose Annual is the best comment on the success of this attempt. The editor of the Annual, J. Horace McFarland, found ready and cheerful cooperation among the members of the Society who could afford proper help. It is believed that the articles presented in the 1916 Annual were of such value that the volume will long remain a standard reference book, comparing favorably with the best issues of the National Rose Society of England.

In the late spring of 1916, a fund for research work in rose diseases was started. A liberal response to the call for subscriptions from interested rose-growers all over the country made it possible for the officers to arrange through Dr. H. H. Whetzel, the pathologist of Cornell University, for the employment of Dr. L. M. Massey, to undertake the disease-study desired. The University itself bears an important part of the cost of the work.

Dr. Massey began work in the early fall, and his accomplishments up to date have been most gratifying, even though it was not expected that there would be any particular result for at least a year.

The research fund was solicited largely through personal effort, and it is my sincere hope that the subscriptions will be renewed and extended, so that

the work may be carried on for another year, or as much longer as is necessary to have the members of the Society fully informed as to rose diseases, and as to the best means for combating them.

It seems to me that the nurserymen are not taking advantage of their opportunities in being represented more strongly in the Society. I would like to quote from a letter of February 17, 1917, received from John Watson, president of the American Association of Nurserymen:

I am a member of the American Rose Society, but a poor one, and a member of the committee for the Cornell Garden. I especially regret not having been able to do anything for the garden except to send some rose-plants, and to ask my friends among the foreign rose-growers to do likewise. No society of its kind is of greater importance to the nursery trade than the Rose Society, for it has so much to do.

From this you will see how one of our prominent nurserymen feels toward the Society. It would give us all great satisfaction to have the nurserymen and their interests more closely allied with the Rose Society.

ROSE TEST-GARDENS.—Our work in the past as regards the rose-testing gardens is too well known for me to go over it at this time. These test-gardens, I am glad to say, are bringing good results, but not so good as we would like to have in the way of records of how the gardens are being kept up. May we look forward to only a few years hence when every city of any size will take hold and foster a rose-garden such as Portland, Ore., is undertaking at this time, and which is being backed by such bodies as the Chamber of Commerce, City Councils, and ninety-seven other organizations.

Another recommendation which I wish to make is that the editor and the advertising manager of the Annual be made ex-officio members of the Executive Committee.

In conclusion I want to add a word of appreciation for Mr. Hammond, who has labored long and faithfully as Secretary of the Rose Society. His has been a labor of love, and not remuneration, and I think we cannot feel too kindly toward him, realizing as we do that to him, more than to any other one man, is due the standing of the American Rose Society today.

S. S. PENNOCK, *President.*

SECRETARY'S REPORT

The year past has seen a large advance in the popular interest in the American Rose Society. "There is no success like Success."

Our total membership is 1,092, as follows: 55 life members, 188 active members and 899 associate members, these coming from nearly every state in the Union. The record gives us one addition to the life membership list, Mrs. Elizabeth C. T. Miller. The life membership fund now is \$3,200.

During the past year, two of our life members have died, William G. Barry of Rochester, N. Y., who was the second President of the Society, and S. J. Reuter, of Westerly, R. I., both men of character and standing.

The Executive Committee has had fourteen meetings during the past year.

A new rose test-garden has been established for the Pacific Northwest at Portland, Ore. Application was received for Bellingham, Wash., and from the Agricultural College, Texas, but we were not able to provide for more than one this year.

Several new roses were offered for registration and are recorded in the Annual just published.

The interest in local June rose shows is becoming more general.

The Society visited officially the Washington Test-Garden, and the Cornell Test-Garden, at Ithaca, N. Y.

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At Newport, R. I., a special effort is being made to have an excellent outdoor display on July 4 next. The American Rose Society tries to encourage these local shows.

At Barrytown-on-the-Hudson, the usual rose show was held. This local show has been for many years past an event well attended by local people and a Society medal was presented.

The growth and development of the Society has reached a point where the future seems assured, and the detail work is steadily increasing to such an extent that your Secretary, who has filled the position to the best of his ability since 1905, is obliged to decline reelection to the office, and I may truthfully say that the work done by all the officers and others concerned has brought the American Rose Society to its present condition, and may its motto, "A rose for every home, and a bush for every garden" become a fixed fact in this country of ours—"the land of the free and the home of the brave."

BENJAMIN HAMMOND, *Secretary*.

TREASURER'S REPORT

For Year Ending March 16, 1917.

RECEIPTS

Balance on hand March 22, 1916	\$1,047 92
Dues	1,199 01
Premiums for exhibitions	1,015 00
Life membership	50 00
Deposit for Army returned	100 00
Guarantee fund	2,825 00
Rose research fund	670 00
Interest on mortgage certificates	150 00
Interest on permanent fund	16 22
Interest on current balance	24 81

\$7,097 96

DISBURSEMENTS

Printing, stationery, etc.	\$544 86
Medals, engraving, etc.	92 60
Premiums for exhibitions	1,160 00
L. M. Massey, rose research work	680 37
Sundry expenses of Secretary, postage, etc.	210 43
Exhibition expenses	2,525 00
Deposit in permanent fund	50 00
	<hr/>
	\$5,243 26
*Balance on hand	1,854 70

\$7,097 96

INVESTMENT ACCOUNT

Westchester & Bronx Title and Mortgage Guaranty Co.	
Three mortgage certificates	\$3,000 00
Summit Trust Company	
Permanent Fund	250 00
Hubbard Medal Fund	250 00

HARRY O. MAY, *Treasurer*.

*Subject to expense bills of annual exhibition.

New York Meeting, August 23, 1917

A meeting of the American Rose Society was called to order by President Hammond at 11 o'clock, August 23, 1917, in Grand Central Palace, New York City.

President Hammond introduced H. P. Knoble, general chairman of the Cleveland (Ohio) Flower Show Committee, who outlined the plans for the exhibition at Cleveland on November 8 to 11, 1917, and asked that the American Rose Society send a good exhibit for this show. Because of lack of space in the only available building, there could be no large exhibition groups of roses but plenty of space could be found for the ordinary exhibition vases. Mr. Knoble explained the preliminary premium list. President Hammond referred to the fact that the Society took official action on exhibiting at the Cleveland show at the exhibition of November 10 to 15, 1915, and stated that the Society would appoint competent judges.

F. L. Mulford, of Washington, D. C., chairman of Committee on Nomenclature, stated that at the Philadelphia meeting a report on nomenclature was referred back to the Committee to be considered by them in a joint session with the Committee on Registration. It has been found impossible to arrange for this joint meeting but because of the fact that a code should be adopted before the next Rose Annual is published, the Committee asked for the adoption of a revised report. After discussion and amendments, the following report was accepted by the Society as its official rules regarding nomenclature.

CODE OF NOMENCLATURE ADOPTED AUGUST 1, 1917

Realizing the great confusion and inconvenience that arises from a duplication of names, and recognising the great convenience and satisfaction to the roesarian, and especially to the cottage gardener, of simple, usable names, the American Rose Society adopts the following rules of nomenclature to apply to the names used in all the publications of this Society and at its exhibitions, and at exhibitions to which it contributes medals.

Priority.—Rule 1. No two varieties of roses shall bear the same name. The name first published shall be the accepted and recognised one, except in cases where the name has been applied in violation of this code.

Name.—Rule 2. In selecting names for varieties, the following points should be emphasised: distinctiveness, simplicity, ease of pronunciation and spelling, indication of origin or parentage.

Publication.—Rule 3. Publication consists (1) in registration with the American Rose Society; or (2) in the distribution of a printed description of the variety named, giving the distinguishing characters of flower, foliage, plant, etc., or (3) in the publication of a new name for a variety that is properly described elsewhere, such publications to be made in any book, bulletin, report, trade catalogue, or periodical, providing the issue bears the date of its publication and is generally distributed among rose-growers, florists, nurserymen and horticulturists; or (4) in certain cases, the general recognition of a name for a propagated variety in a community for a number of years shall constitute publication of that name.

Citation.—Rule 4. In the full and formal citation of a variety name, the name of the originator or introducer who first published or exhibited it, shall also be given.

Revision.—Rule 5. No properly published variety name shall be changed for any reason except conflict with this code, nor shall another variety be substituted for that originally described thereunder. Necessary changes to conform to the provisions of this code shall be recommended by the Committee on Nomenclature and adopted by vote of the Society before being officially recognised.

Enforcement.—Rule 6. (a) The Secretary shall withhold registration of any name not conforming to these rules, or, if in doubt, shall refer the application to the Nomenclature Committee for recommendation.

(b) The Society will withhold its medals and money prizes from American roses whose names do not conform to these rules, or foreign roses not exhibited under the names as modified by the Society.

(c) The Secretary and the Editor of the publications of the American Rose Society are empowered and directed to carry out these rules in all literature issued by the Society. In applying the foregoing rules, the following principles shall be recognised:

Rule 1, Priority.—(a) The paramount right of the originator, discoverer or introducer of a new variety to name it within the limitations of this code, is recognised and emphasised.

(b) Where a variety name, through long usage has become thoroughly established in American floricultural literature for two or more varieties, it should not be displaced or radically modified for either variety except in cases where a well-known synonym can be advanced to the position of leading name. The several varieties bearing identical names should be distinguished by adding the names of the originator or introducer of each sort, or by adding some other suitable distinguishing term that will insure their identity in catalogues or discussions.

(c) Existing American names of varieties which conflict with earlier published foreign names of the same or other varieties but which have become thoroughly established through long usage shall not be displaced.

Rule 2, Naming.—(a) No variety shall be named unless distinctly superior to existing varieties in some important characteristics, nor until it has been determined to disseminate it.

(b) When the exigencies of a case make it appear expedient, such words as "white," "red," "double," and similar ones, may be used as part of a name, but not such names as seedling, hybrid, or sport.

(c) The spelling and pronunciation of a varietal name derived from a personal or geographical name shall be governed by the rules that control the spelling and pronunciation of the name from which it is derived.

(d) A variety imported from a foreign country shall retain its foreign name, subject only to such modification as is necessary to conform to this code.

(e) The name of a person should not be applied to a variety during his life without his expressed consent. The name of a deceased horticulturist should not be so applied except with the consent of his or her heirs.

(f) The use of a latinised name for a variety, or a cross or hybrid is not admissible.

(g) The use of a number, either singly or attached to a word, should be considered only as a temporary expedient while the variety is undergoing preliminary test.

(h) In applying the various provisions of this rule to an existing varietal name that has through long usage become firmly imbedded in American floricultural literature, no change shall be made which will involve loss of identity.

Rule 3, Citation.—(a) In determining the name of a variety to which two or more names have been given, that which was published first in conformity to the rules of this code shall be recognized.

(b) It shall be allowable to use a name for a variety, provided the name has not been in general use for at least twenty years.

Mr. E. G. Hill asked if the same name could appear in two groups of roses, as for example in the Hybrid Tea group and the Wichuraiana group. It was the opinion of the Society that it could not.

The Secretary was directed to incorporate the foregoing rule on nomenclature in his report to the trade papers in order that the same might be given publicity for the benefit of introducers of new roses.

Applications for registration of four new roses were received and referred to the Executive Committee for action.

Robert Pyle stated that recently he had visited Dr. C. S. Sargent, at the Arnold Arboretum and had found him enthusiastic over establishing at the Arboretum the most complete and elaborate rose-garden in the country. It was Mr. Pyle's opinion that the American Rose Society should stand back of this project and assist Dr. Sargent in every way possible.

W. R. Pierson called attention to the invitation which the American Rose Society accepted at the annual meeting in Philadelphia to visit the Hartford Rose Test-Garden in June, 1918. Mr. Pierson stated that plans are under way for the enlargement of this garden and that it is proposed to call it the Convention Garden and to make it the official rose test-garden of the Society. A new area is being laid out and there is room for 3,000 more plants. Mr. Pierson hoped there would be generous donations of varieties by growers that the beds might be filled.

The Secretary called the members' attention to the comparatively small number of members of the Society of American Florists and Ornamental Horticulturists who are members of the American Rose Society and urged the members present to coöperate in an endeavor to enlarge the membership list from the ranks of that organization.

W. R. Pierson called attention to the incomplete premium list as outlined

in the preliminary list of premiums published for the Cleveland Flower Show; and urged that some move should be made to have this list more complete. The matter was referred to the Executive Committee for action.

On motion the meeting then adjourned.

E. A. WHITE, *Secretary*.

Cleveland Meeting, Cleveland, Ohio, November 9, 1917

The fall meeting of the American Rose Society was held in Gray's Armory, Cleveland, Ohio, at 4 p.m. on November 9, 1917. Twenty-four members of the Society were present.

President Hammond cordially welcomed the members of the Rose Society to the meeting, and spoke enthusiastically of the success of the work of the Society during the past year. He reported the total paid memberships to date as 1,922.

The Secretary read the changes in the Constitution and By-Laws of the American Rose Society which were proposed at the annual meeting in Philadelphia on March 21, 1917. At that time the Secretary was instructed to send out a post-card vote to the life and active members in accordance with Article VI of the Constitution, which reads as follows:

AMENDMENTS

SECTION 1.—The Constitution may be amended or altered at any annual or called meeting, by an affirmative vote of two-thirds of all the voters represented, either in person or by proxy, when notice of such amendment or alteration shall have been given at the preceding annual meeting; or furnished to the Secretary and mailed by him to all members at their last known places of residence, at least thirty days preceding the meeting at which action is to be taken. In case action is to be taken at an annual meeting, then notice of such proposed change shall also be published in the general program of the Society (if one is issued), for that meeting.

The Secretary reported that 186 votes had been received out of a total of 276 voting members, all of which, with the exception of four, were favorable to the following changes:

Article III, Section 2, to be altered to read as follows: "*Voting*. All members of this Society, except honorary members, shall be entitled to one vote on all questions."

Article IV of the By-Laws to be altered to read as follows: "There shall be three classes of members, known as life, honorary, and annual members."

"Section 1. The payment of fifty dollars (\$50) shall entitle to life membership."

"Section 2. The dues for annual members shall be two dollars (\$2) each year."

Section 3, which reads, "The annual dues for associate members shall be \$1," is hereby repealed.

Section 4, relating to the payment of dues shall hereafter be known as Section 3, without change.

Section 5, relating to the distinction between associate and active members, is hereby repealed.

Upon motion of J. Horace McFarland, the Secretary was instructed to cast the proxy votes which provided for the changes in the Constitution.

C. H. Totty and John Young of the National Flower Show Committee reported progress on the arrangements for housing the National Flower Show in St. Louis, April 6 to 15, 1918. Both were very optimistic over the prospects for a successful show and with the participation of the American Rose Society and the American Carnation Society, both believed that there was not the least doubt that the National Flower Show would be a financial success.

The meeting adjourned at 4:45.

E. A. WHITE, *Secretary*.

Third Annual Field Day, Washington, D. C., June 4, 1917

The third annual Field Day of the American Rose Society occurred at the Arlington Test-Garden, near Washington, on the above date. A considerable number of visitors were present who enjoyed an inspection of the garden, particularly notable because of the excellent training of the climbing roses just coming into bloom.

The address of welcome was given by Dr. L. C. Corbett. J. Horace McFarland, President of the American Civic Association, spoke of the significance of the National Rose Test-Garden and of the advisability and importance of rose-culture during this wartime, because of the necessity for relaxation, recreation, and a return to nature in order that we might the better carry war burdens.

Hon. Carl Vrooman, Assistant Secretary of Agriculture, responded and spoke appreciatively of the work of the American Rose Society. Among his sententious utterances was the following: "The rose is the most fitting emblem of the sanity of beauty. We need to keep our minds in tune through normal living, for we are in this war probably for a long period and we cannot work all day and all night. England and France have taught us the folly of rushing into the conflict in an hysterical manner. We must live as nearly normal lives as possible, and must surely take normal recreation."

Mr. Vrooman referred feelingly to the way in which roses abroad had helped in the hospitals and to pay fitting honor to the dead, including in his statement that if it came to a question of daily bread we might need to abandon our rose areas, but not until there was such need.

William F. Gude extended a hearty welcome to the rose-garden and then invited those present to visit the beautiful gardens of the late Mrs. Gardiner Hubbard, whose annuity in the hands of the American Rose Society is a substantial encouragement for the production of new roses. The party proceeded at once to the Hubbard residence, and were there tendered pleasant hospitalities by Mrs. Hubbard's daughter, Mrs. Bell.

At the luncheon held at 1:45, at the New Ebbitt hotel, forty-one members were present. Brief addresses were made by Benjamin Hammond, E. G. Hill, J. Horace McFarland, Dr. E. M. Mills, George Field, and E. A. White. It was agreed that there be presented a properly inscribed golden emblem of the American flag to Dr. W. Van Fleet for his admirable work with roses. A vote of appreciation was given to William F. Gude for his kindly care and hospitality.

Meetings of the Executive Committee

There follows a brief summary of action taken at the various meetings since the publication of the 1917 Annual.

Philadelphia, February 8, 1917.

The projected rose festival was discussed, and a list of names for judges presented. Returns from the call for 50 per cent of the guaranty fund were reported as satisfactory. Applications were received for the registration of four new roses and submitted to a special committee for report.

A statement was read concerning the meeting in Portland, Ore., of representatives of ninety-nine different organizations of that city on January 11, 1917, who organized the Portland National Rose Test-Garden Association,

under promise of coöperation by the city government of Portland. The following resolution was adopted:

Resolved, That the application made by the Portland Association National Rose Test-Garden be hereby accepted, and that the Executive Committee of the American Rose Society does hereby officially designate Portland, Ore., as the site for the official rose test-garden of the Pacific Northwest, and as a committee representing the American Rose Society the following named gentlemen are appointed to fill the position: J. A. Currey, 1943 North 13th Street, Portland, Ore.; A. J. Clark, 287 Morrison Street, Portland, Ore.; Alfred Tucker, 376 North Thirty-second Street, Portland, Ore.

Action was deferred on an invitation from Newport, R. I., for an exhibition of outdoor roses on July 4. On motion of Robert Pyle, George C. Thomas, Jr., was empowered to appoint a committee of three, including himself, to prepare plans for the holding of outdoor rose shows.

Philadelphia, March 7, 1917.

Eight members were present. A committee consisting of J. Horace McFarland, George C. Thomas, Jr., and Wallace R. Pierson was appointed to revise the rules for registration of new roses and to prepare a uniform registration form. L. J. Reuter was appointed a committee on behalf of the Society to coöperate in the outdoor rose show to be held July 4 at Newport, R. I.

Philadelphia, June 27, 1917.

Six members convened at 1 o'clock at the City Club. J. Horace McFarland proposed resolutions for effecting a change in the membership provisions of the constitution, in accordance with President Pennock's recommendation, as elsewhere reported in full. He also presented a plan for a membership canvass, following the change in membership relations, which was approved.

Upon motion of Robert Pyle, it was resolved that hereafter affiliation of local societies with the American Rose Society be at the rate of \$1 a year for each affiliated member, such payment to be made before February 1 of each year, so that the required number of Annuals may be provided; these to go in bulk to the secretary of the affiliated organization.

It was agreed that the Society's bronze and silver medals should be awarded at exhibitions arranged by amateur societies, but that the gold medals should be awarded only by the Society itself, and for exceptional merit.

A report of the Washington Rose Test-Garden Committee was received and filed, and it was agreed that a financial statement regarding the forthcoming exhibition in Philadelphia, March 20 to 24, be sent by the Secretary to all guarantors. The Secretary was empowered to offer the Rose Annual as a prize for amateur rose exhibitions, when requested.

Mr. Farenwald requested that the \$2,500 guaranty voted by the Society for the St. Louis, 1918, spring show be raised to \$3,000. This was not agreed to. A committee including Messrs. Farenwald, Pennock, and Fancourt was appointed to prepare schedules for premiums to be awarded at the forthcoming rose festival.

Grand Central Palace, New York, August 23, 1917.

Nine members were present. Treasurer May reported a balance in the treasury of \$1,047.92. Consideration of the new roses offered for registration was referred to a special committee, including Messrs. Pyle, Simpson, and W. R. Pierson. On motion of Messrs. Pyle and Pennock, the Treasurer was instructed to pay according to original agreement for the 1916 Rose Annual and for the second edition of the 1917 Annual. It was agreed that the American Rose Society could not assume the expense of preparing a rose-garden at the national

flower shows. Messrs. May, Simpson and Keimel were appointed a committee to arrange the cut-flower rose premium list for the National Flower Show, and W. R. Pierson was appointed to similarly arrange with the Cleveland Flower Show Committee.

The resignation of Admiral Ward on account of official duties was accepted with regret.

New York, October 8, 1917.

Six members were present at 1 o'clock at the Hotel McAlpin. There was discussion concerning the proposed St. Louis Flower Show, in connection with which the American Rose Society is pledged to raise a guaranty fund of \$2,500. It was voted to rescind the agreement previously made for sending out membership coupons in trade catalogues on the fifty-fifty basis.

The matter of publishing a catalogue of roses in American commerce, as in preparation by Charles E. F. Gersdorff and the Editor of the Annual, was considered and ordered to be held over until the 1918 membership fees are available.

The Secretary was instructed to advise members that only individual and not firm memberships are considered.

The Treasurer reported a balance of \$101.75 in the Rose Society research fund, there having been but \$385 subscribed and paid this year. It was, in consequence, agreed that the work be suspended for the present.

Cleveland, Ohio, November 8, 1917.

Seven members were present at the Hotel Statler, from 8 P.M. until 12:30 A.M. The Secretary was instructed to advise Dr. Massey that the remaining funds in hand will be paid toward the rose research work proceeding, the work being temporarily suspended from lack of funds.

The Secretary reported that 186 members of the Society had sent in post-card proxies on the constitutional changes—being two more than the necessary two-thirds vote required by the Constitution. He was instructed to have the revised Constitution and By-Laws mailed to members with the 1918 bills for dues.

A communication from J. A. Currey, of Portland Ore., was referred to the Rose Test-Garden Committee for consideration and report. On the request of W. R. Pierson, Alexander Cummings was appointed as chairman of the Rose Test-Garden Committee in his stead. An invitation was extended to the American Association of Park Superintendents to meet with the American Rose Society in Hartford in June, 1918.

It was agreed that not exceeding \$200 should be spent upon Mr. McFarland's plan for soliciting membership renewals for 1918, and that not exceeding \$150 additional be spent for the securing of new members for 1918 at the enhanced dues.

The Secretary reported that the Society now included 56 life members, 220 active members, 1,646 associate members, all with dues paid for 1917—a total of 1,922 members.

New York, January 4, 1918.

Five members were present at the Hotel McAlpin. President Hammond agreed to attend the Executive Committee meeting of the Society of American Florists and Ornamental Horticulturists in St. Louis, January 21, to arrange for the Society's representation at the National Flower Show. The Secretary was instructed to have entry blanks printed and distributed for the Society's

exhibit at the above flower show, and also instructed to call attention through the trade papers to the following regulation for judging cut-flowers:

All roses shall be disqualified where exhibited with more than two growths (one pinch), except in classes calling for displays and for 100 or more blooms in one vase, on which two pinches are allowed.

The Secretary was also instructed to urge Secretary Young of the Society of American Florists and Ornamental Horticulturists to give proper representation and recognition to the American Rose Society in arranging for the proposed show.

The Secretary reported a total of \$2,500 subscribed to the Society's guaranty fund for the St. Louis show. Dr. Robert Huey was appointed to fill the vacancy on the Rose Test-Garden Committee caused by the resignation of Admiral Ward.

Robert Pyle, W. R. Pierson, and Robert Simpson were appointed a committee on the registration of new roses for the year ending July 1, 1918.

A courteous letter from Courtney Page, Honorable Secretary of the National Rose Society of England, to the editor of the American Rose Annual was presented, proposing an interchange of honorary membership between the two organizations. On motion of Robert Pyle, the Secretary was instructed to advise Mr. Page of the Society's thanks and acceptance.

An invitation was accepted from the Pittsburgh Florists' and Gardeners' Club for the holding of an exhibition in Pittsburgh in the fall of 1918, in connection with their proposed flower show.

Correspondence was read and discussion had relative to arranging for a joint meeting with the American Association of Park Superintendents in Hartford, during June, 1918. A feeling of hearty coöperation with this organization was manifested.

The revised Constitution and By-Laws were submitted for consideration before printing.

New York, February 21, 1918.

Five members were present at the Hotel Collingwood. The special committee reported concerning the arrangement for the transfer of the Society's annual meeting and rose exhibition from the proposed St. Louis show, now abandoned, to the International Flower Show to begin March 14. The arrangement as made by the Secretary with John Young was ratified, as also was President Hammond's appointment of W. R. Pierson and Robert Simpson as a committee to represent the American Rose Society in this exhibition.

The date of the annual meeting of the Society was fixed at 3 P.M. on March 15. Other details concerning the proposed exhibition were determined upon, including a request for space on the main floor, where place would be afforded for carrying on an active campaign to increase the membership of the American Rose Society, in which direction the Secretary was also instructed to prepare a suitable propaganda leaflet, and also to arrange with C. L. Thayer to assist him during the week of the Flower Show, at a compensation of expenses only.

Judges were duly appointed to act at the Flower Show in question.

Robert Pyle was appointed on the Central Rose Test-Garden Committee in place of Captain George C. Thomas, Jr., who has resigned because of his being in the aviation service in France.

It was agreed that the Rose Annual and other printed material used by the Society should be distributed from the office of the Secretary.

Mrs. Charles Frederick Hoffman, President of the International Garden

Club, of New York, was on her own application, elected to life membership in the Society.

The Secretary reported 56 life members, 998 associate members with dues paid for 1918, 73 resignations, and a remainder of 974 who had paid dues for 1917 but not as yet for 1918.

The Cleveland Flower Show

The exhibit of the American Rose Society in conjunction with the Cleveland Flower Show, November 8 to 11, 1917, was a marked success. The exhibition was held in Gray's Armory, the walls and ceiling of which were tastefully decorated with white cloth and southern smilax. In the center of the hall was an attractive group of palms and tropical plants from the J. W. Corrigan Estate.

The certificates for twenty-five blooms of any one variety not yet in commerce were awarded to E. G. Hill, Richmond, Ind., F. R. Pierson Company, Tarrytown, N. Y., Robert Simpson, Clifton, N. J.; the silver medal in the same class was won by A. N. Pierson, Inc., Cromwell, Conn. Other awards were made as usual.

It had been anticipated that because of the war there would not be so many entries as in previous years. This, however, did not prove to be the case, as there were many entries in the different classes. All of the roses exhibited were of superb quality with unusually long stems and remarkable foliage. Competition among the professional florists was unusually keen.

Study of Rose Diseases

In 1916, an agreement was made between the American Rose Society and Dr. Louis M. Massey of the Department of Plant Pathology of Cornell University, to carry on investigation in the diseases of roses. For the year beginning August 1, 1916, members of the Society subscribed \$670 to carry on the work. Dr. Massey devoted three months of his time wholly to this research and collected much valuable data regarding rose diseases in various sections of the United States.

In the original agreement, it was stated that, "It is generally understood and agreed that if the work proves satisfactory to all parties concerned, it will be continued for a second year, an equal sum of \$1,000 to be provided and paid in the manner and at the times above mentioned, by the American Rose Society, to be divided the second year as follows: \$750 for salary for Dr. Massey and \$250 for traveling and living expenses in connection with the rose investigation work away from Ithaca." On the basis of this agreement, early in 1917, the Secretary authorized Dr. Massey to continue the work and sent three calls for subscriptions to members of the American Rose Society most interested in disease research. Those listed below sent subscriptions promptly but many who subscribed in 1916 were feeling the strain of the financial situation caused by the war, and therefore, could not respond to the call. At an Executive Committee meeting in Cleveland, Ohio, November 8, 1917, the financial status of the rose disease research work was discussed. It was the opinion of the Committee that it was impractical to continue the work because of lack of funds due to war conditions. The Secretary was instructed to explain to Dr. Massey the reasons for discontinuing the work and to express to him the appreciation of the Society for the excellent work he had done.

It is the feeling of many that the scope of work is too broad to be financed by

private subscription; that there is great need for research is not questioned. It has seemed that the work should be carried on by the Federal Government and in October the Secretary wrote Dr. W. A. Taylor, Chief of the Bureau of Plant Industry at Washington, D. C., to ask if that Bureau would not appoint a special investigator in rose diseases. Dr. Taylor replied that under normal conditions the Department would undoubtedly have taken over the work, but under the present conditions it was felt that all the activities of the Bureau should be focused on those lines of work which were directly connected with food production.

It is hoped that after the war the investigations on rose diseases may be again renewed, for the need is acute.

Those who contributed to the Rose Disease Research Fund in 1917 were as follows:

Bobbink & Atkins, Rutherford, N. J.	\$20 00
Emil Buettner, Park Ridge, Ill.	20 00
George Burton, Chestnut Hill, Philadelphia	20 00
John H. Dunlop, Richmond Hill, Ontario	20 00
Jacob D. Eisele, Riverton, N. J.	20 00
Gude Brothers Company, Washington, D. C.	20 00
J. M. Gasser Company, Cleveland, Ohio	20 00
B. C. Hammond, Beacon, N. Y.	25 00
Holton & Hunkel Co., Milwaukee, Wis.	20 00
Joseph Heacock Company, Wyncote, Pa.	20 00
The Montgomery Company, Inc., Hadley, Mass.	20 00
W. J. Palmer & Son, Buffalo, N. Y.	20 00
A. N. Pierson, Inc., Cromwell, Conn.	25 00
George H. Peterson, Fair Lawn, N. J.	25 00
Thomas Roland, Nahant, Mass.	10 00
Stuppy Floral Company, St. Joseph, Mo.	20 00
A. J. Stahelin, Redford, Mich.	10 00
George C. Thomas, Jr., Chestnut Hill, Philadelphia	40 00

\$375 00

Rules for Registration of New Roses

Any member of the American Rose Society who is the originator of a new rose may register the variety with the American Rose Society without charge for registration. The name of the rose must be given (a number is not sufficient), together with a full description and pedigree of such rose, and this registration shall be considered by the American Rose Society's Executive Committee. It shall then be published in one or more of the trade papers. If no objection to such registration is filed with the Secretary of the Society within three weeks after such publication the registration shall become permanent. In the event of objection to registration, the decision will rest with the Executive Committee. No description of any variety shall be published by the American Rose Society without the sanction of the Executive Committee. Any person not a member of the American Rose Society may register a new rose upon payment of \$3 for each variety so registered.

Adopted at Executive Committee meeting of November 10, 1913, held in New York City.

Registration of New Roses in 1917

According to the rules and regulations of the American Rose Society (as printed in the *Annals* for 1916 and 1917), the following new roses were registered on the dates given:

From John H. Dunlop, Richmond Hill, Ontario, January 6, 1917:

Mrs. Henry Winnett. H.T. Mrs. Charles Russell × Mrs. George Shawyer. A vigorous plant with rich dark green foliage and strong constitution; flower a bright red of the Richmond shade, deliciously fragrant; bud of good form; petals well reflexed and solid in texture; has excellent keeping qualities.

From Dailedouze Brothers, Brooklyn, N. Y., August 23, 1917:

Ophelia Supreme. H.T. Sport of Ophelia. Habit, character of foliage, freedom of growth, and hardiness same as Ophelia; flower light rose-pink with darker shading in the center and yellow at base of each petal; form, fragrance and bud same as Ophelia, with four to five more petals than Ophelia; freedom of bloom and lasting quality same as Ophelia.

From Frederick R. M. Undritz, West New Brighton, S. I., N. Y., August 23, 1917:

Frederick R. M. Undritz. H.W. Dr. W. Van Fleet × Mrs. W. J. Grant (Belle Siebrecht). Climber; foliage same as Dr. W. Van Fleet; very vigorous, perfectly hardy; flower double, four inches in diameter, dark pink, center projecting, medium long, quite fragrant; bud pointed and firm; fifty-three petals, curved, stiff, center close; blooms profusely in June; may bloom later; lasting quality, on bush five or six days.

From The Montgomery Company, Inc., Hadley, Mass., November 8, 1917:

Boston. H.T. Mrs. George Shawyer × Montgomery seedling. Very vigorous; foliage abundant, round and medium green; free grower; long, erect stems; flower medium size and full to center, one-toned medium pink, globular, decidedly fragrant, with an average of seventy-five petals; very free bloomer and good keeper.

From A. N. Pierson Co., Inc., Cromwell, Conn., January 4, 1918:

Evelyn. H.T. Ophelia sport. Vigorous; freedom of growth and hardiness like parent; foliage dark green, abundant; flower large, soft pink, toning to yellow at base of petals; somewhat globular; fragrance and bud like parent; forty-five to fifty petals; freedom of bloom same as parent, but has better keeping qualities.

From F. R. Pierson Company, Tarrytown, N. Y., January 4, 1918:

Rosalind. H.T. Sport of Ophelia. Habit of plant, character of foliage, freedom of growth, and hardiness same as Ophelia; flower bright coral in bud, apricot-pink when half open, shell-pink when open full, very fragrant, thirty to forty petals; free bloomer and excellent keeper.

From F. R. Pierson Company, Tarrytown, N. Y., January 4, 1918:

Silvia. H.T. Sport of Ophelia; habit of plant same as Ophelia; character of foliage better than Ophelia; freedom of growth and hardiness same as Ophelia; flower large, sulphur-yellow, shading to white, very fragrant; bud pointed; petalage, freedom of bloom, and lasting quality same as Ophelia.

From E. B. Chenoweth, Mt. Vernon, Wash., January 15, 1918:

Florence Chenoweth, or Yellow Herriot. Aus. Br. Parent Mme. Edouard Herriot. Habit of plant, character of foliage, and freedom of growth identical with parent; vigorous; flower large, yellow shaded with coral-red, long, and pointed.

American Rose Society Medals and Certificates for Novelties

A Gold Medal is offered for the best new rose not yet disseminated, whether of domestic or foreign origin. Exhibits are to be judged on the official scale of the Society and no Gold Medal is to be awarded to any rose scoring less than 95 points.

A Silver Medal is offered at the same time, and under the same conditions, for a novelty scoring not less than 85 points.

A Certificate of Merit is to be awarded to all novelties scoring 80 points.

It is further ordered that the complete scores of all the entries in the competition be filed with the Secretary of the American Rose Society before the award of any medal is confirmed. No duplicate medal will be awarded. It is understood that though the award of the Gold or Silver Medal or Certificate may be made to the same variety from one exhibitor, exhibited in different centers, only one medal will be delivered to the exhibitor.

The Executive Committee of the American Rose Society reserves to itself the right of selection of the judges who shall pass on the exhibits in competition for these medals.

Medals Awarded During 1917

For the best display of roses, the American Rose Society's Gold Medal was awarded to Henry A. Dreer at the Philadelphia Rose Festival, March 20 to 23, 1917.

The Society's Silver Medal was awarded the same firm for the best new rose not in commerce, Golden Emblem being the winner.

The Society's Silver Medal for the best variety not yet in commerce was awarded to A. N. Pierson, Inc., Cromwell, Conn., at the Cleveland Flower Show, November 8 to 11, 1917, Mrs. Henry Winnett being the winner.

Among the affiliated societies the following medals were awarded at the Exhibition of the Syracuse Rose Society, June 28 and 29, 1917:

For the best exhibit of roses by amateurs.—Dr. G. Griffin Lewis, silver medal; Mrs. George W. Barnes, bronze medal; Mrs. Frank H. Hiscock, bronze medal.

One silver and two bronze medals were sent to the Rose Society of Brookland, D. C.; also to the Main Line Flower Show Association of Philadelphia.

Certificates were awarded at the Philadelphia Rose Festival, March 20 to 23, 1917, as follows: Joseph Heacock Company, Wyncote, Pa., pink seedling; Bedford Flower Company, Bedford Hills, shell-pink seedling; Edward Towill, Roslyn, Pa., Golden Gem.

Certificates were awarded at the Cleveland Flower Show, November 8 to 11, 1917, as follows: E. G. Hill Company, Richmond, Ind., Columbia; F. R. Pierson Company, Tarrytown, N. Y., Rosalind; Robert Simpson, Clifton N. J., sport of Jonkheer J. L. Mock.

Regulations and Scale of Points for Judging Blooms and Plants

The official scale of 100 points for judging outdoor roses is as follows: Floriferousness, 20; vigor, 20; color, 15; size, 15; form, 10; substance, 10 fragrance, 10.

A variety shall be considered undisseminated which cannot be exhibited other than by the introducer.

All roses shall be disqualified where exhibited with more than two growths (one pinch), except in classes calling for displays and for 100 or more blooms in one vase, on which two pinches are allowed.

Rules for judging groups of rose plants.—Size of group or collection, 20; distinctiveness, 15; cultural perfection, 20; number of varieties, 20; arrangement and effect, 25.

Single specimen rose plants.—Size of plants, 20; cultural perfection, 25; floriferousness, 20; foliage, 15; quality of bloom, 10; color of bloom, 10.

All exhibits of cut-flowers will be judged by points in accordance with the following official scale:

Competitive classes.—Size, 15; color, 20; stem, 20; form, 15; substance, 15; foliage, 15.

Novelties for certificates, etc.—Size, 10; color, 20; stem, 15; form, 15; substance, 10; foliage, 15; fragrance, 5; distinctiveness, 10.

Local Societies Affiliated with the American Rose Society

Affiliated organizations have paid at the rate of 25 cents per member each year, receive the publications of the Society, and are each supplied with one silver and two bronze medals to be awarded as special American Rose Society prizes at their annual exhibitions. The following are the present affiliated organizations; the figures following names indicate number of members: Flower Show Association of the Main Line, 169; Rose Society of Brookland, D. C., 23; New Bedford Horticultural Society, 40; St. Catharines Horticultural Society, 59; Syracuse Rose Society, 90; The Garden Association of Newport, R. I., 100.

Committees Governing Rose Test-Gardens

Central Committee.—Admiral Aaron Ward, Roslyn, N. Y.; Louis J. Reuter, Westerly, R. I.; George C. Thomas, Jr., Chestnut Hill, Philadelphia.

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 Exton, B. N., Arrochar, Staten Island, N. Y.
 Eyerman, Rudolph, Cleveland, Ohio.
 Fairbairn, Mrs. C. T., Birmingham, Ala.
 Fairchilds, Mrs. M. B., Germantown, Phila.
 Fancourt, E. J., Philadelphia.
 *Farenwald, A., Roslyn, Pa.
 Farmer, W. E., Tifton, Ga.
 Farnham, M. E., Ithaca, N. Y.

- Fegley, Mrs. J. H., Harrisburg, Pa.
 Feickert, Mrs. E. F., Dunellen, N. J.
 Felton, Mrs. Agnes, Youngstown, Ohio.
 Fendrich, Louis, West Nutley, N. J.
 Fergus, James, West Newtown, Pa.
 Ferguson, Thomas, New York City.
 Ferguson, Mrs. W. C., Garden City, N. Y.
 Fernald, Mrs. Gardner G., Wilton, Maine.
 Fesing, H. W., Houghton, Mich.
 Fink, Harry W., Phoenixville, Pa.
 Filer, Paul S., Spokane, Wash.
 Firming, Miss B. D., Lima, Pa.
 Fischer, D. H. G., Philadelphia.
 Fish, A. J., New Bedford, Mass.
 Fisher, Leander, San Diego, Cal.
 Fisher, Peter, Ellis, Mass.
 Fitchett, J. H., Poughkeepsie, N. Y.
 Fitzpatrick, Paul J., Boston.
 Flanders, Mrs. Roger Y., Milwaukee, Wis.
 Fleck, Howard, Jenkinton, Pa.
 Fleming, George B., Kittanning, Pa.
 Fleming, W. M., Seattle, Wash.
 Fletcher, Miss Eva F., West Philadelphia.
 Fletcher, John A., Rutherford, N. J.
 Fletcher, Mary R., Oakland, N. J.
 Florex Rose Gardens, North Wales, Pa.
 Florin, A. L., Fall River Mills, Cal.
 Foley, Philip J., Chicago.
 Folsz, Collingswood, N. J.
 Foote, Mrs. F. Stuart, Grand Rapids, Mich.
 Forbes, H. W., Taunton, Mass.
 Ford, Mrs. Bruce, Philadelphia.
 Ford, Frances B., Cleveland, Ohio.
 Foreman, Dr. A. W., White Hall, Ill.
 Foster, W. Edward, Hackensack, N. J.
 Foster, William E., Providence, R. I.
 Foulke, Mrs. William D., Richmond, Ind.
 Fowler, Mrs. Albert E., Westfield, Mass.
 Fowler, Mrs. Annie B., New Haven, Conn.
 Fowler, Elisha, Boston.
 Fowler, E. Clarke, Philadelphia.
 Francis, James G., Philadelphia.
 Franklin, Malcolm, Philadelphia.
 Franklin, R. H., San Bernardino, Cal.
 Fraser, John, Sr., Huntsville, Ala.
 Frazier, B. W., Wheeling, W. Va.
 French, James H., Fall River, Mass.
 French, Mrs. Stephen L., Fall River, Mass.
 Freschi, John J., New York City.
 Fretz, Samuel S., Jr., Philadelphia.
 Frew, Mrs. W. N., Pittsburgh.
 Friedlander, William S., New York City.
 Fritzsche, Mrs. Wm. J., Toledo, Ohio.
 Frost, Edwin B., Williams Bay, Wis.
 Fuller, Mrs. F. I., Portland, Ore.
 Fuller, Hattie Smith, Albert Lea, Minn.
 Fuller, Walter D., Woodbury, N. J.
 Fulton, C. E., Pittsburgh.
 Funkhouse, Mrs. E. B., Trenton, N. J.
 Furness, Fairman R., Media, Pa.
 Fye, S. E., Oxford, Ohio.
 Gachring, E. W., Philadelphia.
 Gale, Mrs. N. P., Portland, Ore.
 Gallagher, A. J. P., Ridley Park, Pa.
 Gambier, Miss Emilie A., New York City.
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 Ganser, Joseph B., Norristown, Pa.
 Garcia, Miss Esther, Havana, Cuba.
 Gardner, Mrs. George A., New York City.
 Gardner, Mrs. H. A., Seattle, Wash.
 Gardner, N. B., Pittsburgh.
 Garmon, Frank B., Akron, Ohio.
 Garrett, Mrs. A. C., Logan, Philadelphia.
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 Garver Bros. Co., The, Strasburg, Ohio.
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 Gelsey, Frederick C., Great Neck, L.I., N.Y.
 George, James I., Fairport, N. Y.
 *George, Robert, Painesville, Ohio.
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 Gerrard, Archie C., Indianapolis, Ind.
 Gersdorff, Charles E. F., Washington, D. C.
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 Gibbons, W. R., Rahway, N. J.
 Gibbs, Milton E., Rochester, N. Y.
 Gilbert, Miss Gertrude, New York City.
 Gibson, Miss Anna S., Bridgeport, N. J.
 Gibson, Edward G., Baltimore, Md.
 Gifford, A. L., Tarrytown, N. Y.
 Gifford, John C., Coconut Grove, Fla.
 Gilbert, C. C., Nashville, Tenn.
 Gilbert, Mrs. Julia B., Summit, N. J.
 Gilbert, Samuel C., Allentown, Pa.
 Gillett, Frank A., Hoquiam, Wash.
 Gillett, Miss Lucy D., Westfield, Mass.
 Gillice, Thomas, Santa Cruz, Cal.
 Gilmore, Mrs. J. C., Philadelphia.
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 Glenn Bros., Oyster Bay, N. Y.
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 Godfrey, Charles F., Newark, N. J.
 Goetze, Mrs. Otto, Brooklyn, N. Y.
 Gohn, Charles, Bristol, Pa.
 Goldthwaite, J. O., Portland, Ore.
 Good, Frank E., Springfield, Ohio.
 *Good, John M., Springfield, Ohio.
 Goodfellow, A. Z., Fitchburg, Mass.
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 Goodrich, Alfred G., Roland Park, Md.
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 Goodwin, George R., Hartford, Conn.
 Gordon, Mrs. Alexander, Jr., Swissvale, Pa.
 Gordon, W. A., Minneapolis, Minn.
 Gorman, James E., Philadelphia.
 Goesch, Miss Mary C., Rochelle, Ill.
 Goudie, D. O., Detroit, Mich.
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 Goulding, E. W., Toronto, Ont.
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 Graham, W. Pruett, Frankfort, Ky.
 Grant, John, Highland Park, Mich.
 Grant, U. S., Evanston, Ill.
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 Greed, Thomas J., Baltimore, Md.
 Greeley, A. P., Washington, D. C.
 Greeley, A. W., Williamsport, Pa.
 Greeley, Dr. Jane L., Jamestown, N. Y.
 Green, Miss Adelaide, Port Clinton, Ohio.
 Green, F. L., Greenwood, Ont.
 Green, Miss S. Maud, Sacramento, Cal.
 Greene, Mrs. Thos. G., Portland, Ore.
 Greene, Mrs. Wallace, Washington, D. C.
 Greenfield, Mrs. Leo D., Far Rockaway, N.Y.
 Greening, Charles E., Monroe, Mich.
 Greenleaf, Miss Anna M., Wilmington, Del.

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 Greer, Mrs. H. C., Morgantown, W. Va.
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 Gregg, W. W., Earlville, Ill.
 Gregory, A. H., San Francisco, Cal.
 Greve, Charles T., Cincinnati, Ohio.
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 Gribble, R. B., Crafton, Pa.
 Griffen, George M., Plainfield, N. J.
 Grim, Victor E., Allentown, Pa.
 Griss, Mrs. Karl, Hamilton, Ont.
 Grob, E. G., Brunswick, Ga.
 Grobbel, Mrs. D. C., Detroit, Mich.
 Groome, H. C., Warrenton, Va.
 Grosoup, F. N., El Mora, N. J.
 Groshens, Victor, Roslyn, Pa.
 Grover, M. E., DuBois, Pa.
 Groves, F. S., Philadelphia.
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 Gude, W. F., Washington, D. C.
 Guenther, C. T., Hamburg, N. Y.
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 Gunsburg, Mrs. D., Buffalo, N. Y.
 Guthridge, Mrs. Adele F., Washington, D. C.
 *Guttman, Alexander J., New York City.
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 Haas, D. de, Plainfield, N. J.
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 Hagar, Miss Mary G., Brooklyn, N. Y.
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 Hall, Mrs. Annie R., Turtle Creek, Pa.
 Hall, W. Hunt, New York City.
 Hallett, H. H., New Rochelle, N. Y.
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 Hamer, Stephen, Philadelphia.
 Hamilton, R. L., Baltimore, Md.
 Hamlin, Miss Emma, Bethlehem, Pa.
 Hammer, V. T., Branford, Conn.
 Hammond, Benjamin, Beacon, N. Y.
 Hankap, H., Brooklyn, N. Y.
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 Hanshaw, Dr. E., Brooklyn, N. Y.
 Hanson, Oscar H., New York City.
 Harde, Mrs. Herbert C., New York City.
 Harding, Mrs. J. Horace, Rumson, N. J.
 Haring, Mrs. J. C., Massillon, Ohio.
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 Harkett, W. A., Dubuque, Iowa.
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 Harris, E. V. E., Grove, La.
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 Harris, Henry F., Chestnut Hill, Phila.
 Harris, S. G., Tarrytown, N. Y.
 Harris, Wharton E., Lansdowne, Pa.
 Harris, William, Rockwood, Ont.
 Harris, W. K., Philadelphia.
 Harrison, Miss Carrie, Brookland, D. C.
 Harrison, Mrs. Charles C., Jr., Philadelphia.
 Harrison, W. C., Painesville, Ohio.
 Harrison, W. W., Philadelphia.
 Harrison's Nurseries, Berlin, Md.
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 Hart, George E., Lynbrook, L. I., N. Y.

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 Hartwig, C. Fred, Niagara Falls, N. Y.
 Harvey, John F., Philadelphia.
 Hatton, Thomas, New London, Conn.
 Haug, I. L., Berkeley, Cal.
 Hauser, Herbert, Oakland, Cal.
 Haven, Rev. Wm. I., Summit, N. J.
 Havens, Albert G., Mountain Lakes, N. J.
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 Hawkes, Mrs. McDouglass, New York City.
 Hawkins, Miss Beatrice, Pittsburgh.
 Hawkins, Miss S. G., Chestnut Hill, Phila.
 Hawkinson, Theodore W., Walker, Iowa.
 Hawley, Mrs. Flora S., Eureka Spring, Ark.
 Hawthorne, Mrs. Bayard, Plainfield, N. J.
 Hayes, George E., Westfield, N. J.
 Hayes, Miss M., Croton-on-Hudson, N. Y.
 Hayes, H. W., Waban, Mass.
 Hays, James A., Tacoma, Wash.
 Hayward, Mrs. Lydia A., Bronxville, N. Y.
 Hayward, Mrs. W. E., Ipswich, Mass.
 Heacock, James W., Wyncote, Pa.
 *Heacock, Joseph, Wyncote, Pa.
 Healey, R. E., Plattsburg, N. Y.
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 Hearl, N. H., Frankford, Philadelphia.
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 Heath, Mrs. Walter C., Summit, N. J.
 Heinemann, A. W., Collingswood, N. J.
 Heintish, J. DeBarry, Lancaster, Pa.
 Heintzman, George, Collingswood, N. J.
 Hejtmann, Joseph, Schuyler, Neb.
 Heller, Clyde A., Philadelphia.
 *Heller, Myer, New Castle, Ind.
 Helmer, R. H., Summerland, B. C.
 *Henderson, Charles, New York City.
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 Henderson, Mrs. H. G., New York City.
 Hendrickson, Mrs. Eliza, Haworth, N. J.
 Hendrickson, I. S., Flowerfield, N. Y.
 Henis, Mrs. G. L., Lake Mohegan, N. Y.
 Henn, A. W., Cleveland, Ohio.
 Henry, Frank B., Philadelphia.
 Henry, Mrs. Frank B., Philadelphia.
 Henshaw, A. M., New York City.
 Hentz, Henry, Jr., Madison, N. J.
 Herndon, Dr. J. S., Roseburg, Ore.
 Herring, Mrs. C. T., Amarillo, Tex.
 Herringer, A. L., Cincinnati, Ohio.
 Herrmann, E. A., Chicago.
 Hertzer, John W., Lancaster, Pa.
 Hess, J. J., Omaha, Neb.
 Hesson, C. A., St. Catharines, Ont.
 Hevessy, Berthold, Logan, Philadelphia.
 Hicks, Henry, Westbury, N. Y.
 Higbie, Robert W., Jamaica, N. Y.
 Higgins, H. W., Orange, Mass.
 Higgins, Dr. Wm. McK., New York City.
 *Hill, E. G., Richmond, Ind.
 Hill, Joseph H., Richmond, Ind.
 Hill, W. Gordon, Newark, N. J.
 Hiller, Samuel E., Auburn, N. Y.
 Hillman, John E., Delta, Col.
 Hinman, Charles S., Homer, N. Y.
 Hinz, Benj. E., Toledo, Ohio.
 Hipple, Frank E., Philadelphia.
 Hippler, Harry R., Drexel Hill, Pa.
 Hires, Mrs. J. Edgar, Ardmore, Pa.

- Hjort, P. J., Thomasville, Ga.
Hjort, Mrs. P. J., Thomasville, Ga.
Hjort, S. C., Quitman, Ga.
Hobart, W. L. B., Nutley, N. J.
Hobbie, W. F., New York City.
Hobbs, Edgar E., Rumford, R. I.
Hobson, L. D., Cincinnati, Ohio.
Hodge, Harry S., University, Va.
Hodgeson, H. W., Richmond Hill, N. Y.
Hoffman, A. F., Colorado Springs, Col.
Hoffman, J. L., Atlanta, Ga.
*Hoffman, Mrs. Chas. F., New York City.
Hoffmann, Herrmann, Cincinnati, Ohio.
Hoffmeier, Dr. E. F., Mauch Chunk, Pa.
Hofford, A. J., Ross, Cal.
Hogan, Willard A., East Orange, N. J.
Holabird, Charles, Bridgeport, Conn.
Holcomb, Miss Rose B., Naples, N. Y.
Holden, Mrs. Edward P., Madison, N. J.
†Holland, E. J., Surrey, Eng.
Holland, James H., Hamilton, Ont.
Holliday, George, Marion, Mass.
Hollingsworth, Mrs. C. B., Greensburg, Pa.
Holman, Frederick V., Portland, Ore.
Holman, Mrs. Herbert, Portland, Ore.
Holmans, Mrs. Lewis H. P., Los Angeles.
Holmes, H. L., Jr., Canton, Ohio.
Holmes, Robert S., Daytona Beach, Fla.
Homans, Miss Susan T., Flushing, N. Y.
Hoopees, Bro. & Thomas Co., West Chester, Pa.
Hopkins, Dr. A. D., Washington, D. C.
Hopkins, B. M., Alexandria, Va.
Hormel, Herman, West Roxbury, Mass.
Hornbeck, Mrs. H. H., Verona, N. J.
Horwill, Mrs. Edward T., Brooklyn, N. Y.
Hosford, G. L., Wichita, Kansas.
Hottes, Alfred C., Columbus, Ohio.
Hough, W. I., Washington, D. C.
Houghton, F. E., Boston.
Housekeeper, Miss Anita, Philadelphia.
Howard & Smith, Los Angeles.
Howard, F. L., Linden, N. J.
Howard, Mrs. R. R., Detroit, Mich.
Howe, E. W., Boston.
Howe, Mrs. Frank P., Philadelphia.
Howe, Henry M., Bedford Hills, N. Y.
Hewe, Walter B., Princeton, N. J.
Howell, G. P., Flint, Mich.
Howell, Henry, Germantown, Philadelphia.
Howland, Mrs. John G., Bridgeport, Conn.
Howland, Mrs. William B., New York City.
Hubbard, Mrs. A. T., Cleveland, Ohio.
*Hudson, Mrs. C. L., New York City.
Huebner, Paul, Wayne Junction, Phila.
Hueter, A., York, Pa.
Huey, Dr. Robert, Philadelphia.
Hughes, Robert E., Buffalo, N. Y.
Hugo, Harry F., Aldan, Pa.
Humphrey, Mrs. A. P., Glenview, Ky.
Hunt, Miss Bessie L., Skaneateles, N. Y.
Hunt, H. R., Niagara Falls, N. Y.
Hunt, Mrs. R. A., Pittsburgh.
Hunt, R. V., Salt Lake City, Utah.
Hunt, W. W., Hartford, Conn.
Huntington, W. R., Put-in-Bay, Idaho.
Huston, Miss C. L., Germantown, Phila.
Hutchings, Mrs. Edward W., Boston.
Hyslop, Frances, Springfield, Ohio.
Idell, Mrs. F. E., Brooklyn, N. Y.
Ihlder, John D., New York City.
Ilgenfrits, I. E. Sons Co., Monroe, Mich.
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Iram, C. R., Tuxedo Park, N. Y.
Irving, Mrs. J. B., Kansas City, Mo.
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Irwin, Roman J., New York City.
Isenberg, Miss Mabel R., Nordhoff, Cal.
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Jackson, Miss M. C. K., Rutherford, N. J.
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*Jacobus, M. R., Ridgefield, N. J.
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Jarvis, Oscar B., Brooklyn, N. Y.
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Jeness, W. H., Roslindale, Mass.
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Jennings, J. C., Harrisburg, Pa.
Jerdinston, W. C., Moline, Ill.
Johanning, Charles, St. Bernard, Ohio.
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Johnson, Edmund G., Brookfield, Mo.
Johnson, H. E., Marquette, Mich.
Johnson, Mrs. H. M., N. Vancouver, B. C.
Johnson, L. A., Guthrie, Okla.
Johnson, Miss S. E., South Bethlehem, Pa.
Johnson, R. M., Yonkers, N. Y.
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Johnstone, Mrs. Homer C., Short Hills, N. J.
Johnstone, Miss Kate A., Pasadena, Cal.
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Jones, Edgar A., Seranton, Pa.
Jones, George M., Pittsburgh.
Jones, James E., Richmond, Ind.
Jones, Ruth, South Otsego, Mich.
Jones, W. D., Dallas, Tex.
Jones, William J., Narberth, Pa.
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Judd, Judge, London, Ont.
Judd, Mrs. M. E., Dalton, Ga.
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Juliha, Mrs. L. G., Washington, D. C.
Juliha, L. G., Washington, D. C.
Jump, John W. D., Easton, Md.
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Karlstrom, R., Cromwell, Conn.
Kauffman, T. B., Lima, Ohio.
Kear, G. W., New Rochelle, N. Y.
Kearney, George W., New York City.
Keeble, Glendinning, Pittsburgh.
Keeler, B. A., Chicago.
Keene, P., Napa, Cal.
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Keimel, W. J., Elmhurst, Ill.
Keller, W. L., Rochester, N. Y.
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Kellogg, Herbert S., Glen Ridge, N. J.
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Kelly, Miss Mary J., Philadelphia.

- Kelly, Mrs. Samuel R., Pittsburgh.
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 Kemmerer, Mrs. J. F., Clinton, Wis.
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 Kennedy, Mrs. John S., New York City.
 Kenyon, L. S., Oklahoma, Okla.
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 Kerr, Mrs. Samuel T., Philadelphia.
 Kessler, George E., St. Louis, Mo.
 Kessler, Henry, Red Bank, N. J.
 Kevorkian, Mihran H., Philadelphia.
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 King, Mrs. Francis, Alma, Mich.
 King, John A., Uniontown, Pa.
 King, J. F., Leakeville, N. C.
 King, R. N., Dayton, Ohio.
 King, William, Paterson, N. J.
 King, William R., Pittsburgh.
 Kinsinger, Mrs. Florence, Langdon, D. C.
 Kirby, James, Huntington, L. I., N. Y.
 Kirkpatrick, F. S., Lynchburg, Va.
 Kirsch, Mrs. W., Los Angeles.
 Klappreth, Miss Emma M., Elmira, N. Y.
 Kleinheinz, William, Ogontz, Pa.
 Knight, Henry F., Boston.
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 Knox, Mrs. Jessie C., San Diego, Cal.
 Koenig, A. B., St. Louis, Mo.
 Koerth, Otto, Fredericksburg, Iowa.
 Kommet, Frank, Lincoln Park, N. J.
 Kossuth, George J., Warwood, W. Va.
 Krause, J. S., Bethlehem, Pa.
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 Kremer, Mrs. Ernest, Niagara Falls, N. Y.
 Kress, Edw., Baltimore, Md.
 Kretzenger, Mrs. John, Cooperstown, N. Y.
 *Krippendorff, Carl H., Cincinnati, Ohio.
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 Kuehne, F. R., Lake Forest, Ill.
 Kuhn, Fred A., Williamsburg, N. Y.
 Kurtz, Thomas C., Portland, Ore.
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 Lane, George H., York, Pa.
 Lane, Joseph J., New York City.
 Lang, George F., Wilmington, Del.
 Lang, Joseph, Cicero, Ill.
 Lang, William F., Jr., Buffalo, N. Y.
 Langdon, Clarence W., Southington, Conn.
 Langjahr, Alfred C., New York City.
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 Latuner, Mrs. J. W., Portland, Ore.
 Lauer, Mrs. Edward, Pittsburgh.
 Laughlin, Mrs. Alex, Sewickley, Pa.
 Laughlin, Mrs. Alex, Jr., Pittsburgh.
 Lautenschlager, F., Chicago.
 Lawlor, Theodore P., Flushing, N. Y.
 Lawrence, Miss Alice, Springfield, Vt.
 Lawrence, H. V., Brooklyn, N. Y.
 Lawrence, P. S., Oak Park, Ill.
 Lawrence, W. T., London, Ont.
 Lay, Henry H., Kewanee, Ill.
 Leach, Aloysius Anthony, Pittsburgh.
 Leavens, G. McPh., Kaycee, Wyo.
 Lee, J. W., Jr., Rye, N. Y.
 Lee, Mrs. Mary E., Westerville, Ohio.
 Leedle, A. C., Springfield, Ohio.
 Leedle, G. D., Springfield, Ohio.
 Lehman & Stage, Boghandel, Copenhagen, Denmark.
 Lehrenkrauss, Mrs. J., Brooklyn, N. Y.
 Leister, B. P., Canton, Ohio.
 Leonard, Mrs. F. E., Grand Rapids, Mich.
 Leonard, R. W., Foxboro, Mass.
 Lester, A. E., New York City.
 Leuba, Andre, Waterford, Conn.
 Levis, Edw. H., Mount Holly, N. J.
 Levison, Harry, Toledo, Ohio.
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 Lewin, Frank, Hawthorne, Cal.
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 Lewis, George W., Glen Ridge, N. J.
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 Lewis, Mrs. J. L., Erie, Pa.
 Lewis, Mrs. Robert J., Norfolk, Va.
 Lewis, S. A., Los Angeles, Cal.
 Lewis, William D., Carthage, Ill.
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 Lindley, Hervey M., Seattle, Wash.
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 Lingenfelter, Robert C., Altoona, Pa.
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 Loehner, Mrs. Grove, Lancaster, Pa.
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 Logan, Thomas W., Jenkintown, Pa.
 Logue, P., West Philadelphia.
 Lommen, Dr. Clarence, Fordville, N. D.
 Long, A. G., Minneapolis, Minn.
 Loranger, John M., Alymer, East, Que.
 Loring, Charles A., New Rochelle, N. Y.
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 Lovejoy, L. W., Fall River, Mass.
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 Lowe, Mrs. Edward, Grand Rapids, Mich.
 Lowell, Edgar L., Portland, Ore.
 Lucas, Mrs. Catharine E., Howard, Pa.
 Luck, Miss L., East Orange, N. J.
 Ludlam, Mrs. Isaac C., Oyster Bay, N. Y.
 Ludlow, Mrs. George F., Palisade, N. J.
 Ludwell, Daniel M., Brooklyn, N. Y.
 Ludwig, M. H., Toronto, Ont.
 Lumpkin, Mrs. E. K., Athens, Ga.
 Lumsden, David, Ithaca, N. Y.
 Lundy, Mrs. F. K., Williamsport, Pa.

- Lupton, A. W., Rahway, N. J.
 Lutz, Mrs. Sophie, Hollywood, Cal.
 Lynch, P. J., West Grove, Pa.
 Lyon, Burt W., Joplin, Mo.
 MacClary, Thomas A., Union, N. Y.
 MacConnell, Thomas, Buffalo, N. Y.
 MacAdow, Dr. Marian, Punta Gorda, Fla.
 McCallum, William H., Philadelphia.
 McCampbell, Mrs. Theron, Holmdel, N. J.
 McCane, H. D., Paoli, Pa.
 McCarthy, Miss S. A., Dorchester, Mass.
 McClellan, Joseph, Norristown, Pa.
 McClure, Richard K., Frankfort, Ky.
 McConnell, J. H., Hollywood, Cal.
 McCoy, Lester, Peoria, Ill.
 McCready, Mrs. Margaret, Cadiz, Ohio.
 McCready, R. T., Sewickley, Pa.
 McCurdy, William G., Orange, N. J.
 McDaniel, John S., St. Michaels, Md.
 McDermott, M. J., Pasadena, Cal.
 McDowell, John W., Washington, Pa.
 McElroy, W. T., Ottumwa, Iowa.
 McEwen, Mrs. Alfred, Tarrytown, N. Y.
 †McFarland, J. Horace, Harrisburg, Pa.
 McGhee, John W., Philadelphia, Pa.
 McGinnis, N. M., College Station, Tex.
 McGirk, Miss Annie, Phillipsburg, Pa.
 McGrady, J. W., Pittsburgh.
 McGurk, James H., Philadelphia.
 McHattan, T. H., Athens, Ga.
 McIlwaine, A. Robinson, Philadelphia.
 McKenzie, Mrs. M. S., New York City.
 McKesson, George C., New York City.
 McKie, Miss K. M., Cambridge, N. Y.
 McKissock, William, Boston.
 McLeod, Dr. C. H., Lynden, Wash.
 McLure, B. S., Wheeling, W. Va.
 *McMahon, F., Seabright, N. J.
 McMartin, L. B., Minneapolis, Minn.
 McMurrich, K. D., Oswego, N. Y.
 McNabb, Kate, Germantown, Philadelphia.
 McNaughton, W., London, Ont.
 McPhee, Miss Jane R., Germantown, Phila.
 McQuade, Hugh, Merion, Pa.
 McRae, Miss Effie, Laurinburg, N. C.
 Macartney, Miss Elizabeth, Philadelphia.
 Mack, Eva B., Alton, Ill.
 Mackrell, Alex., Collingswood, N. J.
 Macomber, E. R., Woodfords, Maine.
 Mackrille, A., New Haven, Conn.
 *Macy, V. Everett, New York City.
 Magruder, Mrs. H. W., Liberal, Kans.
 Maharg, Howard F., Philadelphia.
 Mahon, Joseph E., Glen Head, N. Y.
 Mahoney, Francis T., Dorchester, Mass.
 Malkiel, Leon A., New York City.
 Malley, John D., Washington C. H., Ohio.
 Manda, W. A., S. Orange, N. J.
 Mann, George R., Little Rock, Ark.
 Mann, James R., Washington, D. C.
 Mannering, E., Wilmington, Del.
 Manning, Warren H., North Billerica, Mass.
 Maple, E. D., Sullivan, Ind.
 Marck, Addison A., Burlington, Wis.
 Mariner, George E., LaCrosse, Wis.
 Markham, Miss F. G., Dorrancton, Pa.
 Marks, A. H., St. Louis, Mo.
 Marsh, Raymond C., Mendham, N. J.
 Marshall, R. R., Wheeling, W. Va.
 Martin, Arthur H., St. Thomas, Ont.
 Martin, Miss Elsie C., Plainfield, N. J.
 Martin, Mrs. E. P., Chestnut Hill, Phila.
 Martin, Gregorio, San José, Costa Rica.
 Martin, Henry C., New York City.
 Martin, Mrs. W. B., Seattle, Wash.
 Martin, William F., Washington, D. C.
 Maschke, Maurice, Lakewood, Ohio.
 Mashland, Miss Florence, Newtown, Pa.
 Massenat, Andre, Paris, France.
 Mason, C. H., Dansville, N. Y.
 *Mason, Mrs. J. H., New York City.
 Mason, John W., Atlantic City, N. J.
 Mason, W. H., Mount Holly, N. J.
 Massie, Frank A., Charlottesville, Va.
 Masters, F. R., New York City.
 Matlack, Mrs. K. M., Mt. Airy, Phila.
 Matthews, Mrs. C. W., Scranton, Pa.
 Matthews, Mrs. G. B., Jr., New Orleans, La.
 Mauss, Joseph, Seattle, Wash.
 Mavor, Charles, Wheaton, Ill.
 Maxwell, Miss Maria B., West Philadelphia.
 May, Mrs. E. C., Pittsburgh.
 May, H. O., Summit, N. J.
 *May, John N., Summit, N. J.
 Maybaw, Mrs. M. W., Maplewood, N. J.
 Mayo, E. S., Rochester, N. Y.
 Meals, I. D., Harrisburg, Pa.
 Mellon, Mrs. R. B., Pittsburgh.
 Mellon, Mrs. T. A., Pittsburgh.
 Mellon, William J., Wissahickon, Phila.
 Mellon, Mrs. W. L., Pittsburgh.
 Menager, L. C., Jacksonville, Fla.
 Mengel, Ralph, Reading, Pa.
 Merriam, Mrs. E. W., Newton, N. J.
 Merrick, Mrs. H. M., Pottstown, Pa.
 Mershon, Elsie C., Pasadena, Cal.
 Metzgar, Mrs. C. H., Santa Ana, Cal.
 Metzger, Ralph A., New Philadelphia, Ohio.
 Meyers, G. W., Cleveland, Ohio.
 Michell, Frank B., Andalusia, Pa.
 Michell, Henry F., Philadelphia, Pa.
 Middleton, Mrs. C. W., Torresdale, Pa.
 Mierzwa, Charles, Munhall, Pa.
 Miles, Charles W., Chambersburg, Pa.
 Miller, Mrs. A. C., Shelby, N. C.
 Miller, A. L., Jamaica, L. I., N. Y.
 *Miller, Mrs. E. C. T., Cleveland, Ohio.
 Miller, E. M., Los Angeles.
 Miller, Earl S., Binghamton, N. Y.
 Miller, H. H., Penpack, N. J.
 Miller, Mrs. Hazel, Freewater, Ore.
 Miller, Miss Julia, Cleveland, Ohio.
 Miller, P. B., Seattle, Wash.
 Miller, Robert, Farmington, Utah.
 Miller, Miss Rose E., Greensburg, Pa.
 Miller, Mrs. S. M. D., Detroit, Mich.
 Mills, Dr. Edmund M., Syracuse, N. Y.
 Mills, Mark Packard, Philadelphia.
 Millstead, W., Cold Spring Harbor, L. I., N. Y.
 Minch, Philip J., Painesville, Ohio.
 Minns, Miss Lula A., Ithaca, N. Y.
 Mishey, M. B., Mt. Joy, Pa.
 Mitchell, C. C., Dorchester, Mass.
 Mitchell, Francis B., Pittsford, N. Y.
 Mitchell, George W., Bristol, Conn.
 Mitchell, G. P., Lansdowne, Pa.
 Mitnell, Rev. Jas. F., San Jacinto, Cal.
 Mitchell, Percival H., Toronto, Ont.
 Mitchell, Mrs. Walter, Pittsburgh, Pa.
 Mitchell, W. G., Rochester, N. Y.
 Moffitt, James K., Piedmont, Cal.

- Mohlman, Mrs. J. H., Brielle, N. J.**
Mohney, Delwyn D., Ford City, Pa.
Molloy Bros., Washington C. H., Ohio.
Monck, W. A., New Orleans, La.
 *Montgomery, Alex., Natick, Mass.
 *Montgomery, Alex., Jr., Hadley, Mass.
 Montgomery, Robert, Natick, Mass.
 Montour, E. W., Baltimore, Md.
 Moody, L. W., Emporia, Kans.
 Moore, Mrs. J. S., Winthrop, Mass.
 Moore, J. Turner, Reading, Pa.
 Moore, Miss K. T., Scarborough, N. Y.
 Moore, Mrs. Kenneth W., Trenton, N. J.
 Morden, M. B., Hamilton, Ont.
 Morgan, Mrs. F. C., Chestnut Hill, Phila.
 Morrill, Mrs. G. N., Cleveland, Ohio.
 Morris, Mrs. A. G., Yonkers, N. Y.
 Morris, J. G., Millneck, L. I., N. Y.
 Morrison, B. Y., Takoma Park, Washington, D. C.
 Morrissee, Miss Althea, Ramapo, N. Y.
 Morrow, James, Catasaqupa, Pa.
 Morse, A. B., St. Joseph, Mich.
 Morse, Mrs. C. H., New York City.
 *Mortenson, Stephen, Southampton, Pa.
 Morton, C. C., Jacksonville, N. C.
 Morton, William C., Harrisburg, Pa.
 Moss, Milton, Huntsville, Ala.
 Moss, W. W., Edgewater, Norfolk, Va.
 Motley, Mrs. Thomas, Jr., Boston.
 Mott, Miss M., Radnor, Pa.
 Moulton, Mrs. E., Philadelphia.
 Moulton, W. C., Birmingham, Ala.
 Mulford, Miss Fanny A., Hempstead, N. Y.
 Mulford, F. L., Washington, D. C.
 Mulkey, F. W., Portland, Ore.
 Muller, G., New York City.
 Muller, Jean Paul, Washington, D. C.
 Mumma, Harry K., Hagerstown, Md.
 Mundy, Mrs. E. P., Terrace Park, Ohio.
 Munsick, G. W., Maplewood, N. J.
 Murdock, Walter J., Brockton, Mass.
 Murie, Johnston, Seattle, Wash.
 Murphey, Roger H., Urbana, Ohio.
 Murphey, Miss Katharine E., Philadelphia.
 Murphy, Thomas J., Chestnut Hill, Mass.
 Murray, Samuel, Kansas City, Mo.
 Musser, Rev. James B., Ellwood City, Pa.
 Muth, William J., Lansdowne, Pa.
 Myers, C. G., Alliance, Ohio.
 Myers, F. P., Chestnut Hill, Philadelphia.
 Myers, H. W., Tropic, Cal.
 Myers, J. S., Chestnut Hill, Philadelphia.
 Nash, Aubrey S., New York City.
 Nash, Mrs. S. P., Milburn, N. J.
 Natorp, William A., Cincinnati, Ohio.
 Neff, William L., East Orange, N. J.
 Nehrling, A. H., Crawfordville, Ind.
 Neilsen, Einar, Glenview, Ill.
 Neily, Miss K. H., Baltimore, Md.
 Nellis, George W., Auburn, N. Y.
 Nelson, Alex. C., Ruxton, Md.
 Nelson, Dr. J. J., Philadelphia.
 Nelson, J. P., New York City.
 Nelson, Rudolph B., Los Angeles.
 Nettleboro, Mrs. DeW. B., Sewickley, Pa.
 Newbold, Miss Edith, New York City.
 Newbold, Mrs. E. S., Chestnut Hill, Phila.
 Newbold, F. R., New York City.
 Newbold, James B., Baltimore, Md.
 Newell, H. G. G., Fellows, Cal.
 Newell, Miss Ida, Delaware, Ohio.
 Nichols, C. A., Worcester, Mass.
 Nichols, Mrs. H. S. P., Germantown, Phila.
 Nichols, J. A., Cleveland, Ohio.
 Nichols, Mrs. J. C., Kansas City, Mo.
 Niessen, The Leo Co., Philadelphia.
 Nitchie, Mrs. J. E., Westfield, N. J.
 Noe, L. A., Madison, N. J.
 North, Miss Clara E., New Brighton, N. Y.
 Northup, Dr. G. A., Poughkeepsie, N. Y.
 Norton, Harry A., Ayers Cliff, Que.
 Noxon, F. M., Lorain, Ohio.
 Noye, Richard K., Queenstown, Ont., Can.
 Noyes, Fred B., Chicago.
 Nugent, Mrs. F. B., Coconut Grove, Fla.
 Nyland, A. C. H., Glen Ridge, N. J.
 Oakes, Miss Mary, Bloomfield, N. J.
 Oberdorf, B. H., Dansville, N. Y.
 O'Donnell, Frank, Brooklyn, N. Y.
 Oehrl, W. Harry, Baltimore, Md.
 Ogden, W. B., Lemon City, Fla.
 Oglevee, Rev. J. A. B., Edmond, Okla.
 O'Grady, T. F., Oakland, Cal.
 Ojserkis, Sigmund, Hammonton, N. J.
 Oliver, Mrs. Henry, Sewickley, Pa.
 Olmsted Bros., Brookline, Mass.
 O'Mara, Patrick, New York City.
 O'Neill, John J., Camden, N. J.
 O'Reilly, Elizabeth, Philadelphia.
 Orlady, G. B., Philadelphia.
 Ormiston, Roy W., Montreal, Can.
 Ormond, James B., Morris, Minn.
 Ormsbee, Mrs. M. H., Massapequa, L. I., N. Y.
 Orndorff, Miss Lizzie, Russellville, Ky.
 Orr, Dr. A. V. B., Chester, Pa.
 Osborn, Mrs. H. F., Garrison, N. Y.
 Osmun, Fred D., Rutherford, N. J.
 Ostler, Harry, Salt Lake City, Utah.
 Overley, Mrs. William D., Danville, Va.
 Oves, H. F., Harrisburg, Pa.
 Owens, C. C., Lowville, N. Y.
 Paar, Frank W., Brooklyn, N. Y.
 Page, Arthur W., Garden City, N. Y.
 †Page, Hon. Courtney, Earldoms, Ridgeway, Enfield, Middlesex, Eng.
 Page, Dr. O. F., Sand Point, Idaho.
 Palmer, W. J., Buffalo, N. Y.
 Pancoast, Mrs. Annie P., Hancock's Bridge, N. J.
 Pappas, P., Litchfield, Conn.
 Park, Byron B., Stevens Point, Wis.
 Park, Joseph H., Port Murry, N. J.
 Parker, A. M., Strafford, Pa.
 Parker, A. S., Detroit, Mich.
 Parker, Charles F., Washington, D. C.
 Parker, Miss Emma H., Hindman, Ky.
 Parker, Robert B., Newark, N. J.
 Parker, Walter M., Manchester, N. H.
 Parson, A. E., Wilmington, Del.
 Parsons, Schuyler L., Jr., Islip, L. I., N. Y.
 Pascoe, Mrs. M. W., Taft, Cal.
 Passavant, H. E., Philadelphia.
 Patrick, E. D., Marengo, Ill.
 Patten, Fred B., St. Louis, Mo.
 Patten, I. M., Glasgow, Mont.
 Patterson, H. S., Jeannette, Pa.
 Patterson, John N., Washington, Pa.
 Patterson, Morris S., Germantown, Phila.
 Patterson, Mrs. R. A., Richmond, Va.
 Paul, A. C., Minneapolis, Minn.

- Paul, Mrs. William K., Belmont, N. Y.
 Payne, Dr. F. L., Westerly, R. I.
 Payson, Miss Margaret L., Dennis, Mass.
 Pearsall, A. E., Melrose, Fla.
 Pearsall, Samuel, Flatbush, Brooklyn, N. Y.
 Pease, F. N., Altoona, Pa.
 Peck, Mrs. A. N., Woodmere, L. I., N. Y.
 Peck, E. C., Macedonia, Ohio.
 Pedrick, W. L., Ferndale, Cal.
 Peek, S. H., East Aurora, N. Y.
 Peer, Mrs. Fred C., Lyons, N. Y.
 Peirce, E. Allan, Waltham, Mass.
 Pell, Thorold W., Newark, N. J.
 Pemberton, Rev. Jos. H., Havering, Romford, Eng.
 Penna, Alfonso, Jr., Bello Horizonte, Estado de Minas, Brazil.
 Pennoek, Mrs. A. L., Lansdowne, Pa.
 Pennoek, Mrs. Edward, Germantown, Phila.
 Pennoek, J. L., Philadelphia.
 *Pennoek, S. S., Philadelphia.
 Pennoek, Mrs. S. S., Lansdowne, Pa.
 Peon, Felipe, Merida, Yucatan, Mex.
 Pepper, James S., Kansas City, Mo.
 Perin, Mrs. F., Cincinnati, Ohio.
 Perkins, Mrs. J. H., Cincinnati, Ohio.
 Perrine, Mrs. F. A. C., Trenton, N. J.
 Perry, Joseph H., Worcester, Mass.
 Perry, Lester, Ogden, Utah.
 Peterson, Alfred, St. Louis, Mo.
 Peterson, George H., Fair Lawn, N. J.
 Petrosch, Mrs. Carl S., New York City.
 Pforsheimer, F., Purchase, N. Y.
 Phillips, Capt. Levi B., Cambridge, Md.
 Phillips, Charles S., Cincinnati, Ohio.
 Phillips, V. V., Brigham City, Utah.
 Pickering, A. M., Hempstead, L. I., N. Y.
 Pickett, J. A., Lexington, Ky.
 Pierson, Lincoln, Madison, N. J.
 Pierson, Oliver S., East Orange, N. J.
 *Pierson, P. M., Scarborough, N. Y.
 *Pierson, W. R., Cromwell, Conn.
 Pilkington, J. B., Portland, Ore.
 Pilton, George, Hamilton, Ont.
 Pinaut, Z. R., New Bedford, Mass.
 Pinkerton, Miss E. P., E. Dowington, Pa.
 Pirkey, Mrs. E. M., Topeka, Kans.
 Piper, Charles, Pittsburgh.
 Pitham, A. W., Seattle, Wash.
 Pitkin, William, Rochester, N. Y.
 Pitt, Mrs. N. R., New Rochelle, N. Y.
 Pittenger, H., Medford, N. J.
 Plata, I. de D. Restrepo, Apartado 72, Cali, Dpto. del Valle, Colombia.
 Plumb, Charles E., Ridgeville, Ont.
 Plumb, D. S., East Orange, N. J.
 *Poeblmann, Aug. F., Morton Grove, Ill.
 Poffenhols, William, Richmond, Cal.
 Popp, Mrs. A. Ralph, Shaker Heights, Cleveland, Ohio.
 Popular, Charles A., Galveston, Tex.
 Porter, Mrs. Harry T., Germantown, Phila.
 Post, Mrs. A. J., New York City.
 Post, George W., Chicago.
 Post, Zeno H., Grand Rapids, Mich.
 Potter, W. F., Cortland, N. Y.
 Powell, Mrs. S. A., Upper Montclair, N. J.
 Pozniak, Steve C., Toledo, Ohio.
 Pratt, Mrs. A. S., New York City.
 Pratt, Charles T., New Hartford, N. Y.
 Pratt, Mrs. Harold I., Glen Cove, L. I., N. Y.
 Pratt, Percy P., Jackson, Mich.
 Pratt, Miss Rosalind C., Stony Creek, Conn.
 Prentice, Mrs. S. O., Hartford, Conn.
 †Preston-Hillary, S. A. R., Gwernant, Northwood, Middlesex, Eng.
 Prieto, Ramon F., Cardenas, Cuba.
 Prince, Mrs. Julius, New Rochelle, N. Y.
 Prindle, H. B., Riverside, Conn.
 Pritchard, David, Bedford Hills, N. Y.
 Pritchard, J., Bedford Hills, N. Y.
 Purdue University, Horticultural Department, Lafayette, Ind.
 Purdy, Charles C., Holmesburg, Phila.
 Pye, Miss Alice, West Philadelphia.
 Pyle, Robert, West Grove, Pa.
 Quereau, C. H., White Plains, N. Y.
 Rainey, Frank L., Danville, Ky.
 Rainey, Joseph, Chestnut Hill, Philadelphia.
 Ramsperger, H. G., Leonia, N. J.
 Raamaussen, A., New Albany, Ind.
 Rath, Fred, San Francisco.
 Rawlings, Dr. J. W., Tacoma, Wash.
 Ray, G. J., East Orange, N. J.
 Redman, S. C., Washington, D. C.
 Reed, Rev. E. A., Springfield, Mass.
 Reed, Mrs. W. McK., Pittsburgh.
 Reese, Miss Ella, Brookland, D. C.
 Reeves, E. A., South Euclid, Ohio.
 Reilly, M. D., Albany, N. Y.
 Reinberg, George, Chicago.
 *Reinberg, Peter, Chicago.
 Remick, Mrs. J. C., Moberly, La.
 Remick, Mrs. Royal C., Esmont, Va.
 Restrepot, Camile C., Medellin, Rep. de Colombia, South America.
 Reuter, Louis J., Westerly, R. I.
 Reynolds, A. G., Harrisburg, Pa.
 Reynolds, Mrs. John H., Rome, Ga.
 Rice Bros., Geneva, N. Y.
 Rice, Harry L., Boston.
 Rich, Mrs. A. A., Foley, Ala.
 Rich, William P., Boston.
 Richards, E. C., Tacoma, Wash.
 Richards, E. H., Cortland, N. Y.
 Richardson, Hayden, Dennis, Mass.
 Richardson, H. A., Joplin, Mo.
 Richardson, J. N., Catonsville, Md.
 Ried, Mrs. H. F. H., New York City.
 Reige, Clarence L., Platteville, Wis.
 Riegel, Andrew E., Albany, N. Y.
 Riegel, A. J., Albany, N. Y.
 Riegel, August, Albany, N. Y.
 Rieger, Harry, Philadelphia.
 Rieker, Edwin C., Philadelphia.
 Righter, Miss Jane, Ambler, Pa.
 Riley, Miss Effy, Rochester, N. Y.
 Riley, Frank E., Bridgeton, N. J.
 Rising, Mrs. E. H., Saugerties, N. Y.
 Ritter, W. Lee, Baltimore, Md.
 Rix, Mrs. F. R., New York City.
 Roberts, C. H., Covins, Cal.
 Roberts, Eugene H., New Orleans, La.
 Roberts, G. Theo., New York City.
 Roberts, Mrs. Wm. H., Moorestown, N. J.
 Robertson, Martha A., Jacksonville, Fla.
 Robin, James A., New Orleans, La.
 Robins, Mrs. Raymond, Chicago.
 Robinson, Dr. Alice, Springfield, Mass.
 Robinson, Miss A. B., Pittsburgh.
 Robinson, A. E., Lexington, Mass.
 Robinson, Mrs. Daniel, Bennington, Vt.

- Robinson, Miss Eva I., Granville, Ohio.
 Robinson, F. W., Detroit, Mich.
 Robinson, H. A., Plainfield, N. J.
 Robinson, James S., Memphis, Tenn.
 Rock, William L., Kansas City, Mo.
 Rockwell, Mrs. A. P., Bronxville, N. Y.
 Rodgers, Wm. T., Harrisburg, Pa.
 Roeding, Mrs. George C., Fresno, Cal.
 Roehrs, Julius, Rutherford, N. J.
 Roelker, W., New York City.
 Rogers, C. B., Macon, Ga.
 Rogers, Charles B., Montgomery, Ala.
 Rogers, Miss Julia A., Philadelphia.
 Roland, Thomas, Nahant, Mass.
 Romaine, Theodore, Hackensack, N. J.
 Rombauer, Mrs. E., St. Louis, Mo.
 Rood, Stanley H., Hartford, Conn.
 Rook, J. Pancoast, Philadelphia.
 Root, John, Collingswood, N. J.
 Rose, Albert N., St. Paul, Minn.
 Rosebach, Miss M. H. W., Philadelphia.
 Rosen, Wm. J., New York City.
 Rosenberg, Mrs. C. L., East Syracuse, N. Y.
 Rosenberg, W. L., Germantown, Phila.
 Rosenbluth, E. M., Wallingford, Pa.
 Rosengarten, H. B., Malvern, Pa.
 Rosenthal, Mrs. H. A., Gypsy, W. Va.
 Ross & Son, Toronto, Ont.
 Rouss, Mrs. P. W., Bayville, L. I., N. Y.
 Rousseau, Thos. G., New Orleans, La.
 Rothfuss, Mrs. Emma, Newark, N. J.
 Rowiecz, Miss Jennie, Cleveland, Ohio.
 Rugee, Sanford B., South Bend, Ind.
 Ruhle, J. W., Houghton, Mich.
 Rumford, Dr. Lewis, Wilmington, Del.
 Rumrill, Mrs. Henry J., Buffalo, N. Y.
 Rumsey, Mrs. C. J., Ithaca, N. Y.
 Rumsey, W. F., White Plains, N. Y.
 Ruppe, J. S., Seattle, Wash.
 Russell, C. E., Cleveland, Ohio.
 Rutherford, Livingston, New York City.
 Rutson, Mrs. W., Detroit, Mich.
 Ryan, Horace E., Indianapolis, Ind.
 Ryan, John, Piedmont, Cal.
 Ryburn, Robert L., Shelby, N. C.
 Ryder, Clarence H., Branford, Conn.
 Saam, Miss C. Elsa, Philadelphia, Pa.
 Sackwood, H. B., Wheeling, W. Va.
 Saceray, Louis M., Merion, Pa.
 St. John, Mrs. L. E., Orange City, Fla.
 Salazar, G., Hollywood, N. Y.
 Salter, Charles C., Bayonne, N. J.
 Salvas, Mrs. J. C., Wynnewood, Pa.
 Samptmann, M., Chestnut Hill, Phila.
 Sanborn, A. N., Oakland, Cal.
 Sander, Mrs. H. S., Atlantic City, N. J.
 Sanders, Herman, Brooklyn, N. Y.
 Sanford, Mrs. E. L., Westfield, Mass.
 Sanford, F. A., Westfield, Mass.
 Saunders, Miss B. C., Washington, D. C.
 Saunders, B. Fred, Georgetown, N. Y.
 Saunders, Miss Mary Eliza, Yonkers, N. Y.
 Sawyer, Miss Amelia, Gilman, Iowa.
 Saylor, Henry W., Huntington, L. I., N. Y.
 Scarborough, Marvin H., Philadelphia.
 Scharp, John H., Brightwaters, L. I., N. Y.
 Schaufhausen, A. N., St. Paul, Minn.
 Schellentrager, E. A., Cleveland, Ohio.
 Schell, Walter S., Harrisburg, Pa.
 Schenkelberger, A. F., Quincy, Mass.
 Schevick, Mrs. Antonia, Bridgeport, Conn.
 Schiele, Charles J., East St. Louis, Ill.
 Schindler, Miss Theresa E., Ithaca, N. Y.
 Schlaffer, John G., Baltimore, Md.
 Schmidt, Edward A., Radnor, Pa.
 Schmidt, Frederick W., Radnor, Pa.
 Schmitt, George, Ridgewood, N. J.
 Schneider, Henry E., Unionport, N. Y.
 Scholes, John F., Philadelphia.
 Scholle, Herman, Ames, Iowa.
 Schonenwolf, Henry W., Buffalo, N. Y.
 Schoonman, Martin, Anthony, R. I.
 Schoyer, B. Preston, Pittsburgh.
 Schreibes, A., Buffalo, N. Y.
 Schroeder, Mrs. A., Montclair, N. J.
 Schulte, E. J., Milwaukee, Wis.
 Schultheis, Anton, College Point, N. Y.
 Schultheis, Henry, Scranton, Pa.
 Schultz, E. K., Jenkintown, Pa.
 Schultz, Joseph K., Barto, Pa.
 Schumm, Lorenz G., LaPorte, Ind.
 Schuster, Edward W., Crookston, Minn.
 Schutt, Miss Gertrude, Harrisburg, Pa.
 Schwartz, E. H., Sharon Hill, Pa.
 Schwarzkopf, A. B., Norfolk, Va.
 Scoles, Richard J., Passaic, N. J.
 Scott, Alexander B., Sharon Hill, Pa.
 Scott, Arthur H., Oak Lane, Philadelphia.
 Scott, Mrs. Charles J., Overbrook, Pa.
 Scott, Mrs. D. H., Northport, Mich.
 Scott, Mrs. John E., Pasadena, Cal.
 Scott, Mrs. John F., Hewlett, L. I., N. Y.
 Scott, Joseph, Charleston, W. Va.
 Scott, Murray, Peapack, N. J.
 Scott, Winfield, Glen St. Mary, Fla.
 Sereaton, Samuel, London, Ont.
 Scudder, Lawrence W., New York City.
 Scripser, Dr. Otis, Zion City, Ill.
 Scull, M. L., Atlantic City, N. J.
 Sealy, Jacob, Brooklyn, N. Y.
 Search, J. T., West Philadelphia.
 Sears, Keith, Trumansburg, N. Y.
 Seaver, Robert, Jamaica Plain, Mass.
 Sebastian, Frank E., Edwarsville, Ill.
 *Sechrist, J. F., Trenton, N. J.
 See, Charles H., Baraboo, Wis.
 Seeley, Dr. A. C., Roseburg, Ore.
 Sees, A. R., Philadelphia.
 Sellers, W. F., Altoona, Pa.
 Sempe, T., Tegucigalpa, Spanish Honduras.
 Seward, W. H., Madison, N. J.
 Shadbolt, Mrs. F., Huntington, L. I., N. Y.
 Shaible, F. G., Freeport, Ill.
 Shannon, Mrs. R. F., Sewickley, Pa.
 Sharp, Mrs. H. L., Newton, Conn.
 *Sharpe, Mrs. E. M., Wilkes-Barre, Pa.
 Sharrett, Mrs. Bertha, Port Richmond, N. Y.
 Shaw, Edwin C., Akron, Ohio.
 Shaw, H. Clay, Piedmont, W. Va.
 Shaw, S. S., Newton, N. J.
 Shawhan, John M., Maywood, Ill.
 Sheble, Mrs. Frank J., Philadelphia.
 Sheble, Mrs. J. H., Jr., Rydale, Pa.
 Sheldrick, R., New York City.
 Shepard, W. H., Short Hills, N. J.
 Shew, E. L., Haddon Heights, N. J.
 Shoch, Robert, Philadelphia.
 Shoemaker, B. H., Philadelphia.
 Shoemaker, Dr. D. N., Takoma Park, D. C.
 Shoemaker, Miss G. T., Wyoming, Pa.
 Shoop, Mrs. Kate, Leechburg, Pa.
 Shotwell, E. D., Hackensack, N. J.

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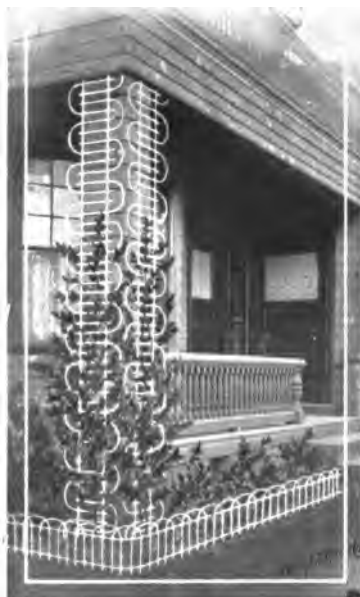
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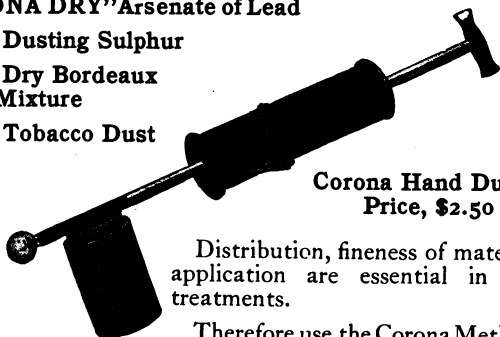
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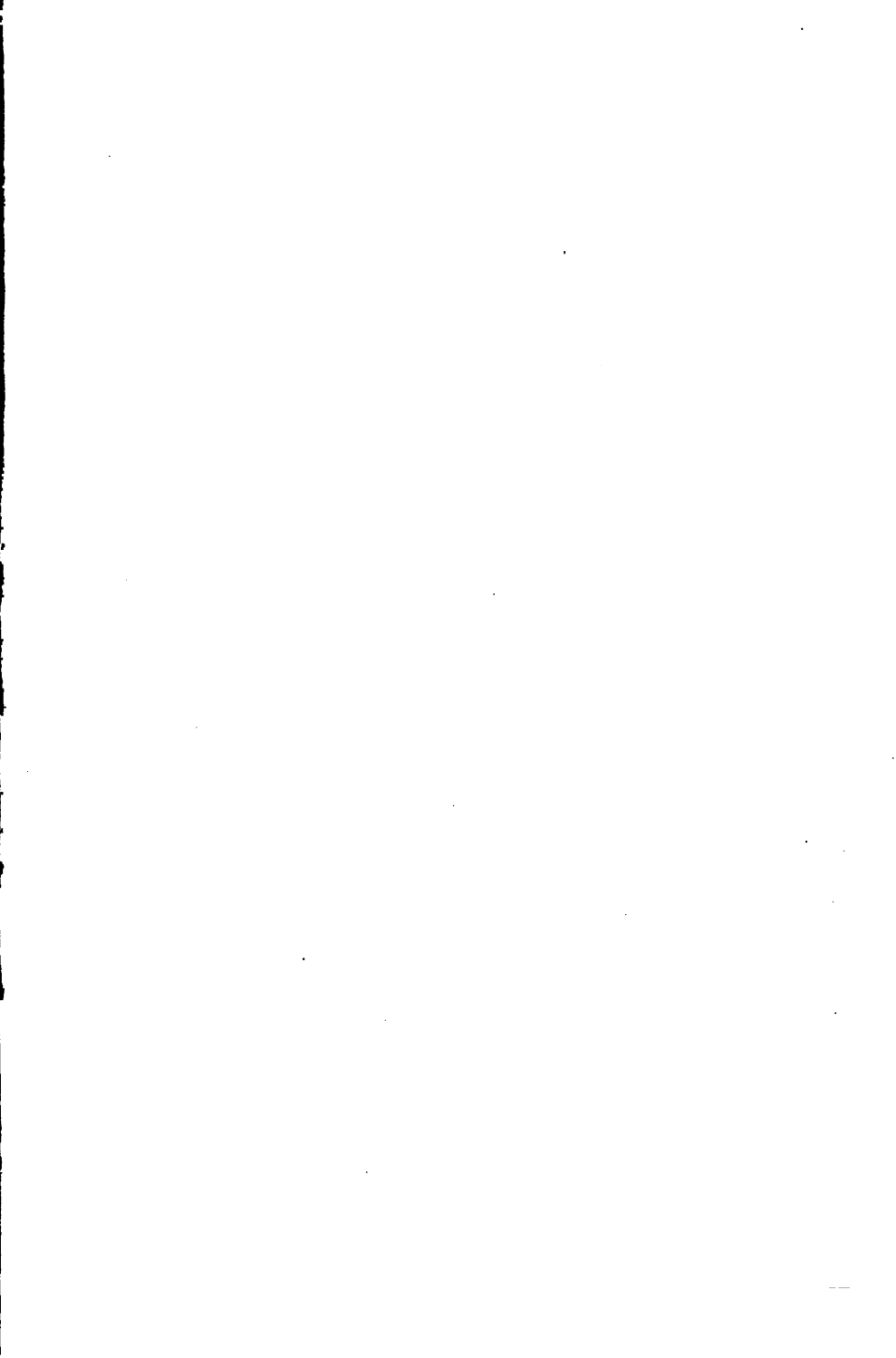
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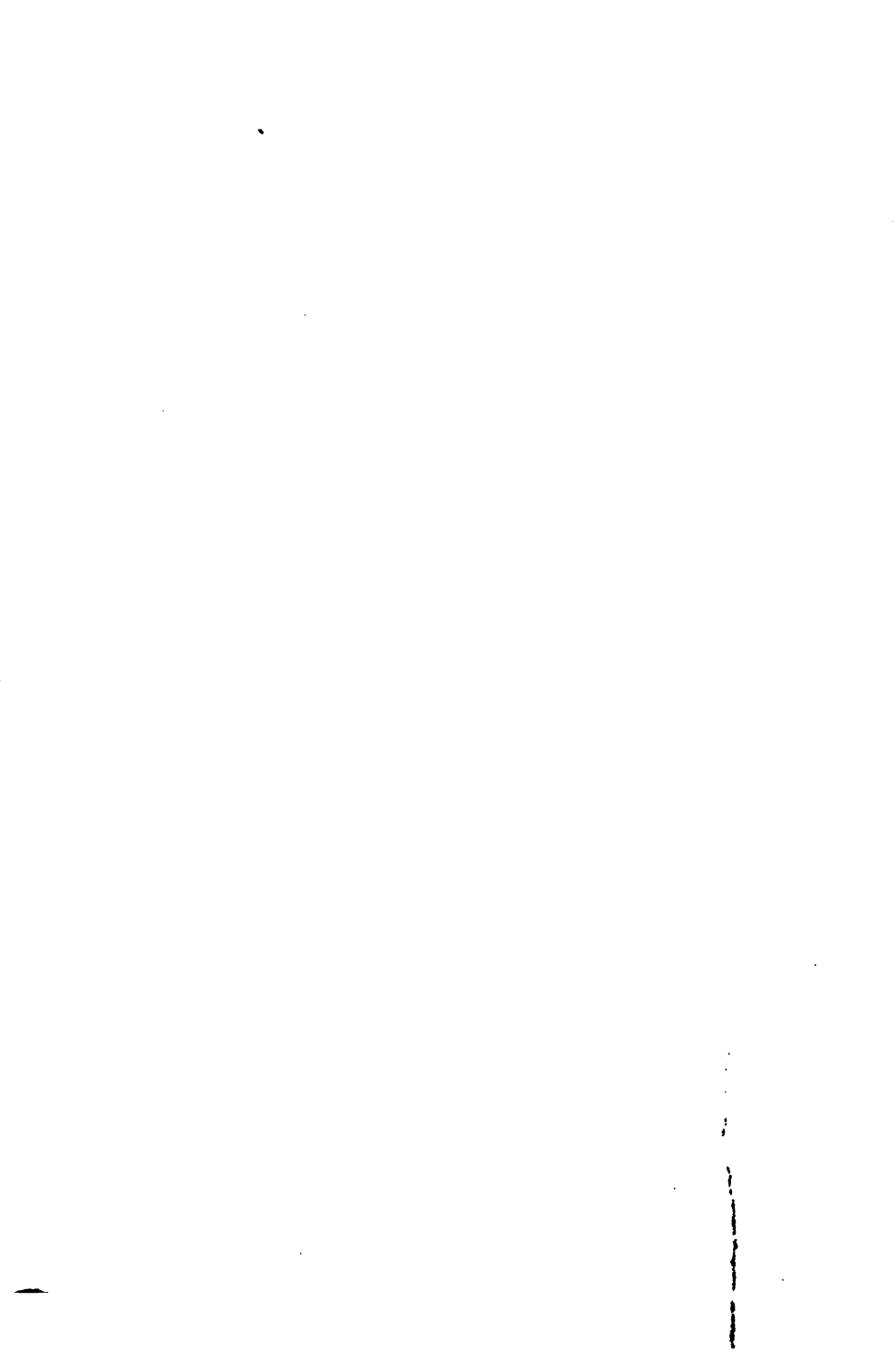
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